

KV-27V10/27V15

RM-Y117

RM-Y121/RM-CM101

KV-29V10C/29V10M/32V15

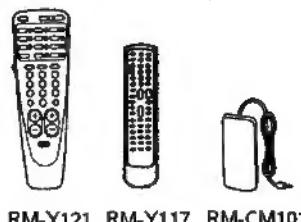
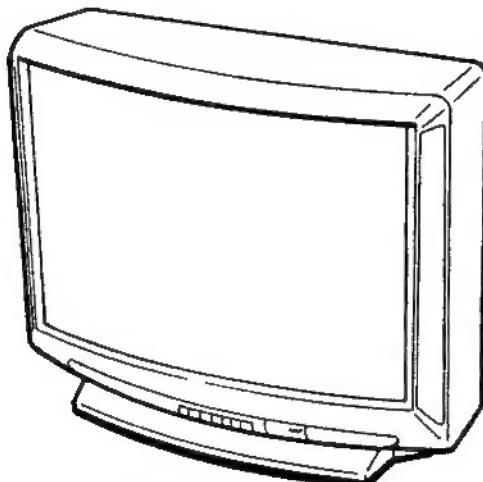
RM-Y117

RM-Y117

RM-Y121

RM-CM101

SERVICE MANUAL



RM-Y121 RM-Y117 RM-CM101

US Model

KV-27V10 Chassis No. SCC-F84Q-A

KV-27V15 Chassis No. SCC-F84R-A

KV-32V15 Chassis No. SCC-F84S-A

Canadian Model

KV-27V10 Chassis No. SCC-F85L-A

KV-27V15 Chassis No. SCC-F85M-A

KV-32V15 Chassis No. SCC-F85N-A

WP Model

KV-29V10C Chassis No. SCC-G49A-A

E Model

KV-29V10M Chassis No. SCC-F89H-A

AA-1 CHASSIS

MODELS OF THE SAME SERIES	
KV-27V10/27V15	KV-27S10/27S15/29RS10
KV-29V10C/29V10M/32V15	KV-29RS15/32S10/32S15
KV-27V55/29V55M	KV-2970RS/2970M/2975M

SPECIFICATIONS

Television system
Channel coverage

American TV standards
VHF: 2-13

Antenna 75-ohm external antenna terminal for VHF/UHF

UHF: 14-69

CABLE TV: 1-125

Picture tube

Hi-Black™ Trinitron® tube
(KV-27V10/27V15/29V10C/29V10M)
27-inch picture measured diagonally
29-inch picture measured diagonally
(KV-32V15)
32-inch picture measured diagonally

- Continued on next page -

TRINITRON® COLOR TV
SONY®



Input	VIDEO and S VIDEO S VIDEO IN Y: 1 Vp-p, 75-ohms unbalanced, sync negative C: 0.286 Vp-p (Burst signal), 75-ohms Video : 1 Vp-p, 75-ohms unbalanced, sync negative Audio : 500 mVrms (100% modulation) Impedance: 47 kilo-ohms	Dimensions/Weight																		
		<table border="1"> <thead> <tr> <th></th><th>Dimensions (w/h/d)</th><th>Weight</th></tr> </thead> <tbody> <tr> <td>KV-27V10</td><td>664×572×513 mm (26 1/4×23 5/8×20 1/4 inches)</td><td>42.9 kg (94 lbs)</td></tr> <tr> <td>KV-27V15</td><td>664×572×513 mm (26 1/4×23 5/8×20 1/4 inches)</td><td>43 kg (94 lbs 13 oz)</td></tr> <tr> <td>KV-29V10C</td><td>664×572×513 mm (26 1/4×23 5/8×20 1/4 inches)</td><td>42.9 kg (94 lbs)</td></tr> <tr> <td>KV-29V10M</td><td>664×572×513 mm (26 1/4×23 5/8×20 1/4 inches)</td><td>42.9 kg (94 lbs)</td></tr> <tr> <td>KV-32V15</td><td>801×664×603 mm (31 5/8×26 1/4×23 3/4 inches)</td><td>70 kg (154 lbs 2 oz)</td></tr> </tbody> </table>		Dimensions (w/h/d)	Weight	KV-27V10	664×572×513 mm (26 1/4×23 5/8×20 1/4 inches)	42.9 kg (94 lbs)	KV-27V15	664×572×513 mm (26 1/4×23 5/8×20 1/4 inches)	43 kg (94 lbs 13 oz)	KV-29V10C	664×572×513 mm (26 1/4×23 5/8×20 1/4 inches)	42.9 kg (94 lbs)	KV-29V10M	664×572×513 mm (26 1/4×23 5/8×20 1/4 inches)	42.9 kg (94 lbs)	KV-32V15	801×664×603 mm (31 5/8×26 1/4×23 3/4 inches)	70 kg (154 lbs 2 oz)
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KV-32V15	801×664×603 mm (31 5/8×26 1/4×23 3/4 inches)	70 kg (154 lbs 2 oz)																		
Output	AUDIO OUT : More than 408 mVrms at the maximum volume setting (variable) More than 408 mVrms (fix) Impedances : 5 kilo-ohms (KV-27S15/29RS15/32S15)	Supplied accessories (KV-27V10/29V10C/29V10M) Remote Commander RM-Y117 (1) with 2 size AA (R6) batteries (KV-27V15/32V15) Remote Commander RM-Y121 (1) with 1 size AA (R6) battery RM-CM101																		
Speaker output	5W×2	Optional accessories U/V mixer EAC-66 Connecting cable VMC-810S/820S, VMC-720M, YC-15V/30V, RK-74A																		
Power requirements	120 V AC, 60Hz																			
Power consumption																				
<table border="1"> <thead> <tr> <th>Model number</th><th>When in use</th><th>In standby mode</th></tr> </thead> <tbody> <tr> <td>KV-27V10</td><td>165 W</td><td>6 W</td></tr> <tr> <td>KV-27V15</td><td>170 W</td><td>6.5 W</td></tr> <tr> <td>KV-29V10C</td><td>160 W</td><td>9 W</td></tr> <tr> <td>KV-29V10M</td><td>165 W</td><td>6 W</td></tr> <tr> <td>KV-32V15</td><td>205 W</td><td>6.5 W</td></tr> </tbody> </table>			Model number	When in use	In standby mode	KV-27V10	165 W	6 W	KV-27V15	170 W	6.5 W	KV-29V10C	160 W	9 W	KV-29V10M	165 W	6 W	KV-32V15	205 W	6.5 W
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KV-32V15	205 W	6.5 W																		

Design and specifications are subject to change without notice.

(CAUTION)

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

(ATTENTION)

APRES AVOIR DECONNECTE LE CAP DE L ANODE, COURTCIRCUITER L ANODE DU TUBE CATHODIQUE ET CELUI DE L ANODE DU CAP AU CHASSIS METALLIQUE DE L APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.

THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

ATTENTION!!

AFIN D'EVITER TOUT RISQUE D ELECTROCUTION PROVENANT D'UN CHASSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISE LORS DE TOUT DEPANNAGE.
LE CHASSIS DE CE RECEPTEUR EST DIRECTEMENT RACCORDÉ A L ALIMENTATION SECTEUR.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK Δ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

ATTENTION AUX COMPOSANTS RELATIFS A LA SECURITE!!

LES COMPOSANTS IDENTIFIES PAR UNE TRAME ET PAR UNE MAPPE Δ SUR LES SCHEMAS DE PRINCIPE, LES VUES EXPLOSEES ET LES LISTES DE PIECES CONT D'UNE IMPORTANCE CRITIQUE POUR LA SECURITE DU FONCTIONNEMENT. NE LES remplacer que par des composants SONY dont le numero de piece est indique dans le present manuel ou dans des supplements publies par SONY. LES REGLAGES DE CIRCUIT dont l'importance est critique pour la securite du fonctionnement sont identifies dans le present manuel. suivre ces procedures lors de chaque remplacement de composants critiques, ou lorsqu'un mauvais fonctionnement est suspecte.

SAFETY CHECK-OUT

(US model only)

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any). Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60–100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)

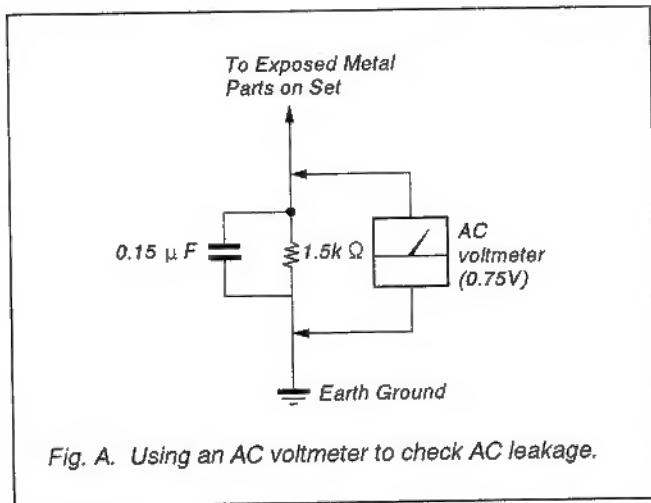


Fig. A. Using an AC voltmeter to check AC leakage.

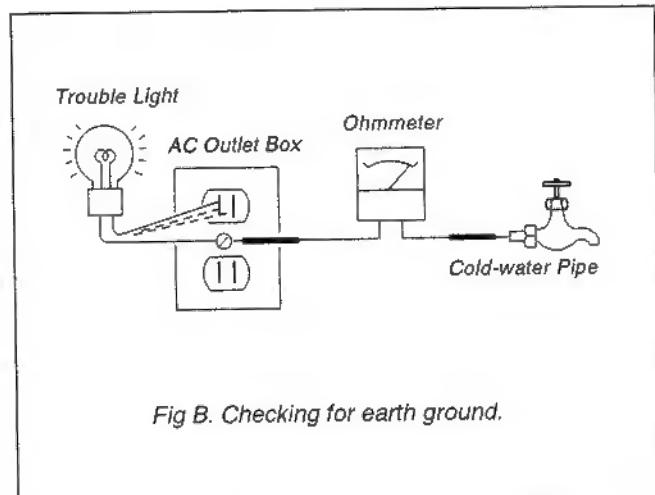


Fig. B. Checking for earth ground.

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• KV-27V10/29V10C/29V10M

SECTION 1 GENERAL

Step 1: Hookup

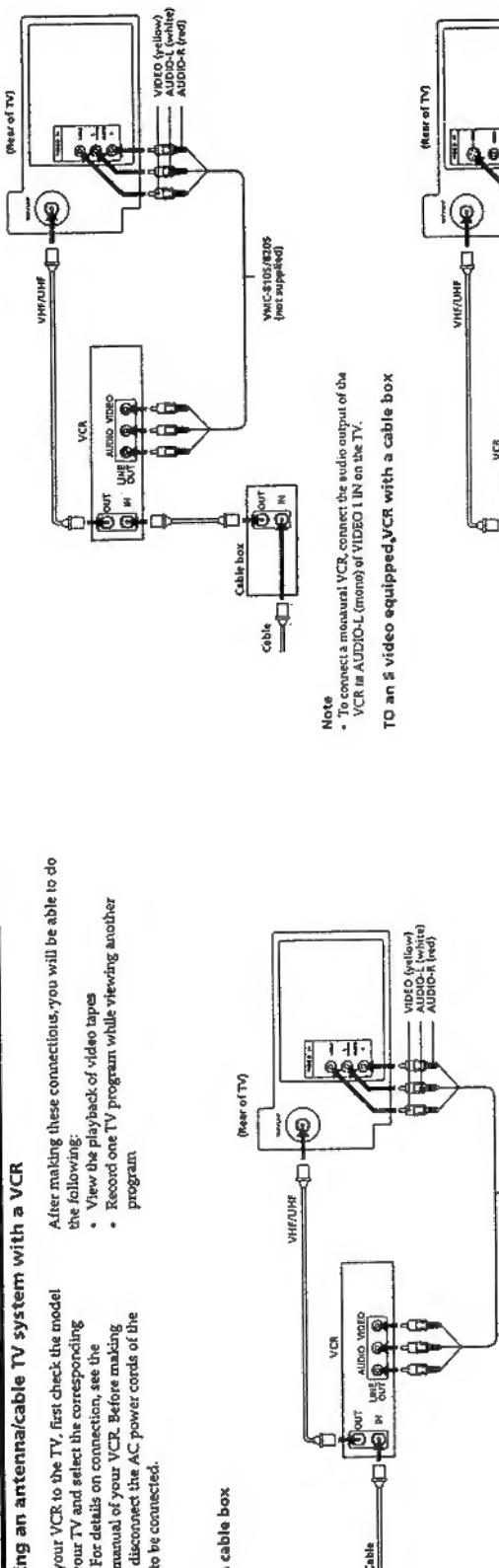
The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

Connecting an antenna/cable TV system with a VCR

To connect your VCR to the TV, first check the model number of your TV and select the corresponding connection. For details on connection, see the instruction manual of your VCR. Before making connection, disconnect the A.C. power cords of the equipment to be connected.

- After making these connections, you will be able to do the following:
- View the playback of video tapes
 - Record one TV program while viewing another program

Without a cable box

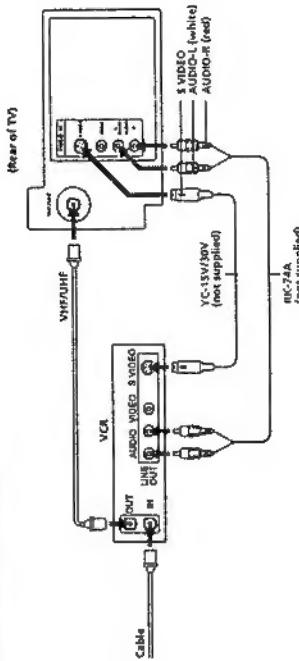
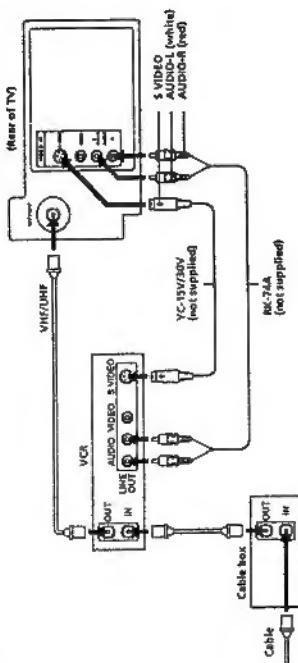


- KV-27V10/29V10C/29V10M/25 to only
- If your VCR has an S-video output jack, hook up as follows and then set S-VIDEO to ON on your TV (page 12). (It is set to ON at the factory.)
- Note**
- To record a monaural VCR, connect the audio output of the VCR to AUDIO-L (mono) or VIDEO 1 IN on the TV.

TO an S video equipped VCR with a cable box



With a cable box

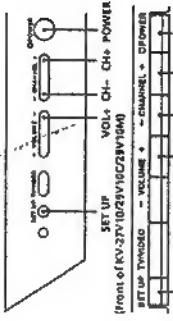


Step 3: Setting up the TV automatically (AUTO SET UP)

You can set up your TV easily by using AUTO SET UP feature. It presets all the receivable channels. To set up the TV automatically, see "Setting cable TV on or off" and "Presetting channels" (page 11).

If the TV is set to a video input, you cannot execute AUTO SET UP. Press TV/VIDEO so that a channel number appears.

(front of KV-27510/29510/32510)



(front of KV-27510/29510/32510)



1 Press POWER to turn the TV on.

2 Press SET UP on the front of the TV.

The menu appears.



3 Press CH+, -CHANNEL+.

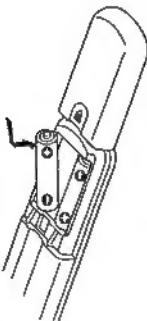
"AUTO PROGRAM" appears on the screen and the TV starts scanning and presetting channels automatically. When all the receivable channels are stored, "AUTO PROGRAM" disappears and the lowest numbered channel is displayed. If the TV receives cable TV channels, CAV is set to ON automatically.

Getting Started

Step 2: Setting up the remote commander

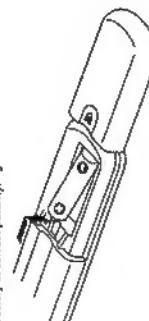
■ KV-27510/29510/32510
RM-Y116 remote commander

Insert two size AA (R6) batteries in correct polarity.



■ KV-27510/29510/32510/30M
RM-Y117 remote commander

Insert a size AA (R6) battery in correct polarity.

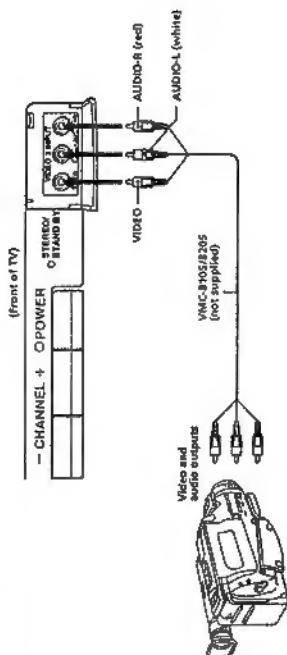


- With normal use, the battery should last for approximately six months.
- If you do not use the remote commander for an extended period of time, remove the battery to avoid possible damage from battery leakage.
- Do not handle the remote commander roughly. Do not drop it, step on it or let it get wet.
- Do not place the remote commander in locations where it is exposed to direct sunlight, near a heater, or where the humidity is high.

Connecting a camcorder

■ KV-27510/29510/32510/30M only

This connection is convenient for viewing a camcorder.

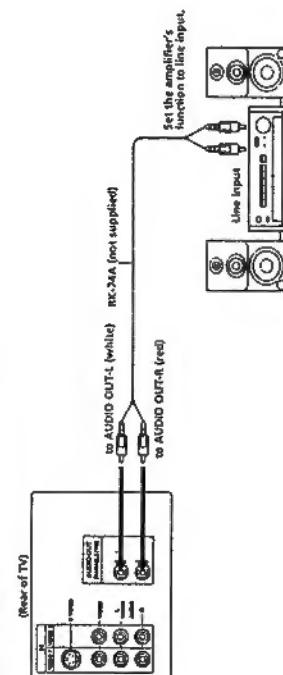


- To connect a camcorder, connect the audio output of the VCR to AUDIO-L (mono) or VIDEO 2 INPUT on the TV.

Connecting an audio system

■ KV-27510/29510/32510/30M only

When connecting audio equipment, see page 17 and 18 for more information.



Note
• If more than 90 seconds elapse after you press a button, the menu disappears automatically.

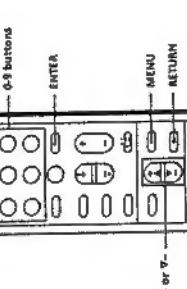
DEMO: To browse the main functions. Press **COL+** in step 3. The functions and menus are displayed one by one.

FACTORY RESET: To restore the factory settings when you are confused about the TV settings. Press **CF-** in step 3. The settings of picture and sound are restored to the factory setting.

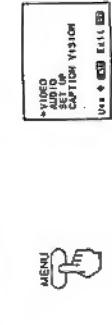
Erasing or adding channels

After AUTO SET UP you can erase unnecessary channels or add the channels you want. Preset channels during the day rather than late at night, when some channels may not be broadcasting.

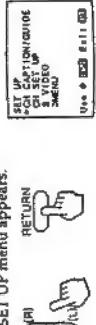
Erasing or adding channels



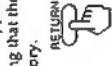
1 Press **MENU**.
The main menu appears.



2 Press **Δ+ or ∇-** to select **SET UP** and press **RETURN**.
The SET UP menu appears.



3 Press **Δ+ or ∇-** to select **SET UP** and press **RETURN**.
The indication “+” appears beside the channel number, showing that the channel is added to the preset memory.



3 Press **Δ+ or ∇-** to select **CH SET UP** and press **RETURN**.
The CH SET UP menu appears.



4 Press **Δ+ or ∇-** to select **CH ERASE/ADD** and press **RETURN**.
The CH ERASE/ADD menu appears.



5 Erase and/or add the channel you want:
To erase an unwanted channel:
(1) Make sure the cursor (>) is beside ERASE.
(2) Press **CH +/-** to select the channel you want to erase and,



(3) Press **RETURN**.
The indication “-” appears beside the channel number, showing that the channel is erased from the preset memory.



To add a channel that you want
(1) Press **Δ+ or ∇-** to select ADD.
(2) Press the 0-9 buttons to select the channel you want to add and press **ENTER** and,



(3) Press **RETURN**.
The indication “+” appears beside the channel number, showing that the channel is added to the preset memory.

6 To erase and/or add other channels, repeat step 5.



7 When you finish, press **MENU**.

Note
• If you erase or add a VHF or UHF channel, the cable TV channel with the same number is also erased or added, and vice versa.

Setting cable TV on or off

If you have connected the TV to a cable TV system, set CABLE to ON, the factory setting. If not, set CABLE to OFF. You do not have to do this procedure if you execute AUTO SET UP (page 9). Do this procedure only when you want to set it manually.

1 Press **MENU**.
2 Press **Δ+ or ∇-** to move the cursor (>) to SET UP and press **RETURN**.

3 Press **Δ+ or ∇-** to move the cursor (>) to CH SET UP and press **RETURN**.



4 Press **Δ+ or ∇-** to move the cursor (>) to AUTO PROGRAM and press **RETURN**.
(1) Make sure the cursor (>) is beside CABLE and press **RETURN**.
If the cursor is not beside CABLE, press **Δ+ or ∇-** to move the cursor and press **RETURN**.
(2) Press **Δ+ or ∇-** to select ON or OFF and,
(3) press **RETURN**.

5 Press **MENU** to return to the original screen.
Note
• If the CH SET UP menu appears in black, the TV is set to a video input and you cannot select AUTO PROGRAM. Press **TV / VIDEO** or **TV** so that a channel number appears.

Operations

Changing the menu language

Setting S video on or off

■ KV-27V10/29V10/29V10MK3/25/10 only

You can change the S VIDEO menu to ON or OFF.

- 1 Press TV/VIDEO select VIDEO 1.
- 2 Press MENU.

- 3 Press Δ + or ∇ - to move the cursor (\rightarrow) to SET UP and press RETURN.
- 4 Press Δ + or ∇ - to move the cursor (\leftarrow) to S VIDEO and press RETURN.

- 5 Press Δ + or ∇ - to select ON or OFF and press RETURN.

- 6 Press MENU to return to the original screen.

- Note
• If S VIDEO appears in black, set a video input to VIDEO 1.
• If you set S VIDEO to ON, the TV automatically receive S video signals whenever a VCR with S video is connected.

Switching quickly between two channels

Press JUMP.
The channel you watched previously appears.



Pressing JUMP again switches back the channel.

- 1 Press MUTE again switches back the channel.
- 2 Press MUTE.

Press MUTE.

"MUTING" appears on the screen.



To restore the sound, press MUTE again, or press VOL +.

Muting the sound

Press MUTE.
"MUTING" appears on the screen.



To restore the sound, press MUTE again, or press VOL +.

Displaying on-screen information

Use this feature to check the channel number, channel caption (if set), and MTS mode (if SAP is selected).
Press DISPLAY.

The TV stays on for the length of time you specify and then shuts off automatically.
Press SLEEP repeatedly until the time (minutes) you want appears.

Each time you PRESS SLEEP, the time changes as follows: 30 → 60 → 90 → OFF.



To cancel the Sleep Timer, press SLEEP repeatedly until "SLEEP OFF" appears, or turn the TV off.



Note
• Set the CABLE BOX/TV selector to TV.
(KV-27V10/29V10C/29V10MK only)

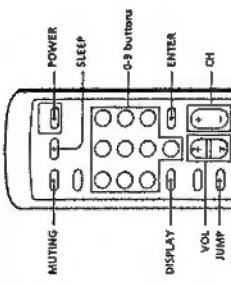
3 Press VOL +/- to adjust the volume.



VOL

VOL

Watching the TV



1 Press POWER to turn the TV on.



If "VIDEO" appears on the screen, press the TV/VIDEO button so that a channel number appears.

2 Select the channel you want:

To select a channel directly
Press the 0-9 buttons and then press ENTER.



Note
• Certain parts of the ESPAÑOL menus remain in English.

Adjusting the picture (VIDEO)

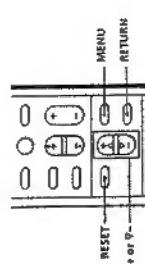


4 Adjust the selected item:
(1) Press $\Delta+$ or $\nabla-$ to adjust the item and,

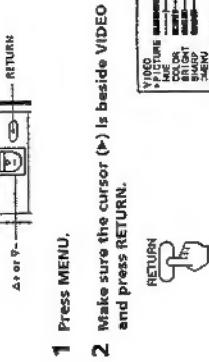
(2) Press RETURN.
The new setting appears in the VIDEO menu.



When watching TV programs, you can adjust the quality of the picture to suit your taste.
You can adjust the picture of video input(s) as well.
These settings are stored separately from those for the TV picture.



5 To adjust other items, repeat steps 3 and 4.
Description of adjustable items
Item Press $\Delta+$ to Press $\nabla-$ to
PICTURE Increase picture Decrease picture
contrast and give soft
vivid color
color
HUE Make skin tones Make skin tones
become greenish become purplish
COLOR Increase color intensity Decrease color intensity
BRIGHT Brighten the Picture Darken the picture
SHARP Sharpen the Picture Soften the Picture



1 Press MENU.
2 Make sure the cursor (\blacktriangleright) is beside VIDEO and press RETURN.

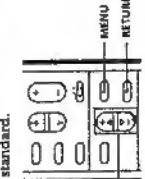
3 Select the item you want to adjust.
For example:
(1) To adjust brightness, press $\Delta+$ or $\nabla-$ to select



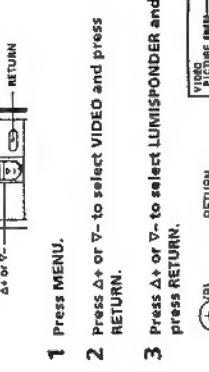
BRIGHT and,
(2) press RETURN.

Adjusting screen brightness automatically (LUMISPONDER)

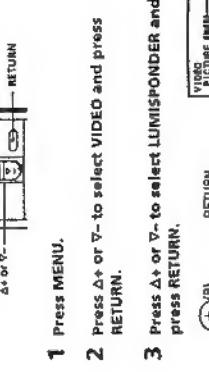
■ KV-27V10/29V10/C29V10M only
The LUMISPONDER feature adjusts the brightness of the screen automatically according to the ambient brightness. The LUMISPONDER function automatically adjusts the level set by the user in the VIDEO menu to the standard.



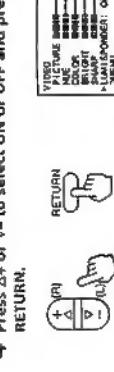
1 Press MENU.
2 Press $\Delta+$ or $\nabla-$ to select AUDIO and press RETURN.



1 Press MENU.
2 Press $\Delta+$ or $\nabla-$ to select VIDEO and press RETURN.



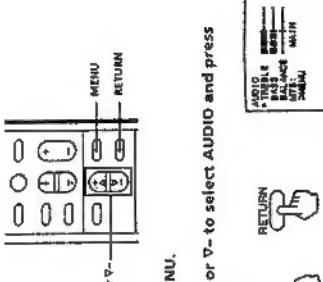
3 Select the item you want to adjust.
For example:
(1) To adjust bass, press $\Delta+$ or $\nabla-$ to select BASS and,



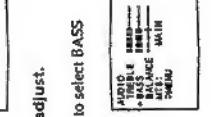
(2) press RETURN.

Adjusting the sound (AUDIO)

You can adjust the quality of the sound to suit your taste.
You can adjust the sound of video input(s) as well.
These settings are stored separately from those for the TV sound.



1 Press MENU.
2 Press $\Delta+$ or $\nabla-$ to select RETURN.



3 For example:
(1) To adjust bass, press $\Delta+$ or $\nabla-$ to select BASS and,

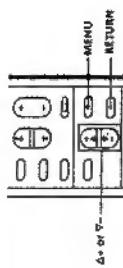


(2) press RETURN.

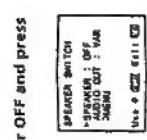
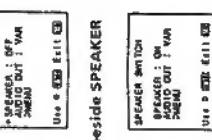


KV-27V10/29V10/29V10M only

The Multichannel TV Sound (MTS) feature allows you to enjoy stereo sound in Second Audio Programs (SAP) at your choice. The initial setting is stereo sound (MAIN). You may switch off the TV speakers when, for example, you want to listen to the sound through a stereo system.



- 1 Press MENU.
- 2 Press $\Delta+$ or $\nabla-$ to select AUDIO and press RETURN.
- 3 Press $\Delta+$ or $\nabla-$ to select MTS and press RETURN.
- 4 Press $\Delta+$ or $\nabla-$ to select SPEAKER SWITCH and press RETURN.
- 5 Press $\Delta+$ or $\nabla-$ to select MAIN, SAP, or MONO and press RETURN.
- 6 Make sure the cursor (\ast) is beside SPEAKER and press RETURN.
- 7 Press $\Delta+$ or $\nabla-$ to select ON or OFF and press RETURN.
- 8 Press $\Delta+$ or $\nabla-$ to select SAP and press RETURN.
- 9 Press $\Delta+$ or $\nabla-$ to select MONO and press RETURN.
- 10 Press $\Delta+$ or $\nabla-$ to select STEREO and press RETURN.



- 1 Press MENU.
- 2 Press $\Delta+$ or $\nabla-$ to select AUDIO and press RETURN.
- 3 Press $\Delta+$ or $\nabla-$ to select MTS and press RETURN.
- 4 Press $\Delta+$ or $\nabla-$ to select SPEAKER SWITCH and press RETURN.
- 5 Press $\Delta+$ or $\nabla-$ to select ON or OFF and press RETURN.
- 6 Make sure the cursor (\ast) is beside SPEAKER and press RETURN.
- 7 Press $\Delta+$ or $\nabla-$ to select SAP and press RETURN.
- 8 Press $\Delta+$ or $\nabla-$ to select MONO and press RETURN.
- 9 Press $\Delta+$ or $\nabla-$ to select STEREO and press RETURN.

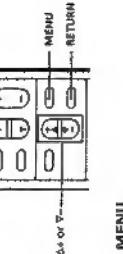
Operations

17

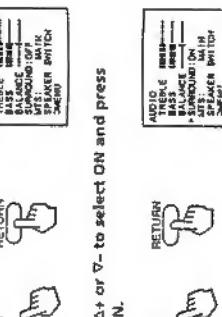


KV-27V10/29V10/29V10M only

SURROUND feature simulate sound reproduction with the atmosphere of a movie theater in a concert hall. Surround sound is only effective for stereo programs.



- 1 Press MENU.
- 2 Press $\Delta+$ or $\nabla-$ to select AUDIO and press RETURN.
- 3 Press $\Delta+$ or $\nabla-$ to select MTS and press RETURN.
- 4 Press $\Delta+$ or $\nabla-$ to select SURROUND and press RETURN.
- 5 Press $\Delta+$ or $\nabla-$ to select ON and press RETURN.
- 6 Listen to stereo sound.



* Stereo and SAP sounds are subject to program sources.



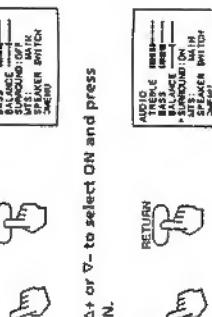
KV-27V10/29V10/29V10M only

To restore the factory settings Press RESET while the AUDIO menu is displayed.

- 1 Press RETURN.
- 2 The new setting appears in the AUDIO menu.
- 3 To adjust other items, repeat steps 3 and 4 above.
- 4 Adjust the selected item:
 - Press Δ to increase the treble response.
 - Press ∇ to decrease the bass response.
 - Press Δ to emphasize the right speaker's volume.
 - Press ∇ to emphasize the left speaker's volume.
- 5 To restore the factory settings Press RESET while the AUDIO menu is displayed.

Note

- When SPEAKER (page 17) is OFF and AUDIO OUT (page 18) is FIXED condition, sound menu appears mid-level setting and it cannot be adjusted.



Setting audio out (AUDIO OUT)

■ KV-27V10/22V10/29V10/40 only
You can select audio out to variable or fixed when SPEAKER is set to OFF. Audio out is variable when SPEAKER is set to ON.

- 1 Press MENU.
- 2 Press $\Delta+$ or $\nabla-$ to select AUDIO and press RETURN.
- 3 Press $\Delta+$ or $\nabla-$ to select SPEAKER SWITCH and press RETURN.
- 4 Press $\Delta+$ or $\nabla-$ to select VARIABLE or FIXED and press RETURN.
- 5 Press $\Delta+$ or $\nabla-$ to select VAR or FIXED and press RETURN.

VAR: Sound output varied according to the TV settings. You can adjust the volume, bass, treble and balance.
FIXED: Sound output is always fixed to a certain level.
You cannot adjust the volume.

Customizing the channel number buttons (CH CAPTION GUIDE)

You can choose up to 12 channels, caption each channel, and assign a specific channel number button to each channel. This feature allows you to select your favorite channels easily by name. For example, you can name channel 20 "ESPN," and assign the channel number 4 button to it.

- 1 Press TV/VIDEO to select TV mode.
- 2 Press MENU.
- 3 Press $\Delta+$ or $\nabla-$ to select SET UP and press RETURN.
- 4 Press $\Delta+$ or $\nabla-$ to select CH CAPTION/GUIDE and press RETURN.
- 5 Press RETURN again.

- 6 Press $\Delta+$ or $\nabla-$ to select a channel guide number button and press RETURN. Each time you press $\Delta+$ or $\nabla-$, the channel numbers change to red in turns. The channel number button you select will be the one you press to call up your favorite channel.
- 7 Press $\Delta+$ or $\nabla-$ to select the channel that you want to caption and press RETURN.
- 8 Enter the letters (up to four) to caption the channel:
(1) Press $\Delta+$ or $\nabla-$ to select the first letter. Each time you press $\Delta+$ or $\nabla-$, the letter changes as shown below and,
0—1—2—3—4—5—6—7—8—9—(Blank space)

Notes

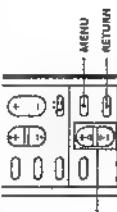
- The position number you already selected appears in yellow.
- If the CH CAPTION/GUIDE menu appears in black, the TV is set to a video input and you cannot select CH CAPTION/GUIDE.
- Press TV/VIDEO to select TV mode.
- If more than 30 seconds elapse after you press a button, the menu disappears automatically.

- 9 Repeat step 5 to 8 to caption other channels.
To erase a caption
Press RESET after step 5.
- 10 Press CH GUIDE to select the CHANNEL GUIDE menu showing channel captions and the corresponding channel number buttons.
- 11 Press CH GUIDE again.
- 12 Press a channel number button, the DISPLAY or FILTER button to select the channel you want.
- 13 To cancel the CHANNEL GUIDE menu
Press CH GUIDE again.

Setting video labels (VIDEO LABEL)

KU-27V10/23V10/C23V10/48 only

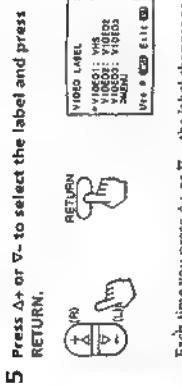
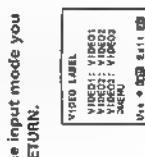
This feature allows you to label each input mode so that you can easily identify the connected equipment. For example, you can label VIDEO 1 IN as VHS.



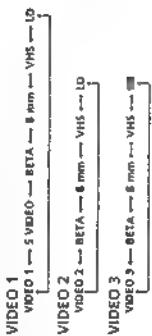
- 1 Press MENU.
- 2 Press $\Delta+$ or $\nabla-$ to select SET UP and press RETURN.
- 3 Press $\Delta+$ or $\nabla-$ to select VIDEO LABEL and press RETURN.

1 Press MENU.

- 2 Press $\Delta+$ or $\nabla-$ to select SET UP and press RETURN.
- 3 Press $\Delta+$ or $\nabla-$ to select VIDEO LABEL and press RETURN.
- 4 Press $\Delta+$ or $\nabla-$ to select the input mode you want to label and press RETURN.



Each time you press $\Delta+$ or $\nabla-$, the label changes as shown below.



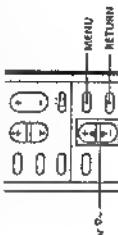
- 5 Press $\Delta+$ or $\nabla-$ to select the label and press RETURN.
- 6 Repeat steps 4 and 5 to label other input modes.

Note
• If more than 30 seconds elapse after you press a button, the menu disappears automatically.

Displaying Caption Vision (CAPTION VISION)

KU-27V10/23V10/C23V10/48 only

Some source programs provide with Caption Vision (Closed Caption). To display Caption Vision, select either CCI, CC2, TEXT1, or TEXT2 from the menu. CCI or CC2 shows you a caption, that is a printed version of the dialog sound effects of a program. (The mode should be set to CCI for most programs.) TEXT1 or TEXT2 shows you text, that is information presented using half to full of the screen. It is not usually related to the program.



- 1 Press MENU.
- 2 Press $\Delta+$ or $\nabla-$ to select CAPTION VISION and press RETURN.
- 3 Press $\Delta+$ or $\nabla-$ to select the caption type and press RETURN.



- 4 Press $\Delta+$ or $\nabla-$ to select the input mode you want to label and press RETURN.
- 5 Press $\Delta+$ or $\nabla-$ to select the caption type and press RETURN.

Note

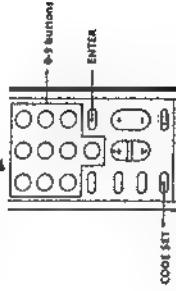
* Captions may appear with a white box or another error instead of a certain word. Poor reception of TV programs can also cause errors in Caption Vision.

Operating video equipment

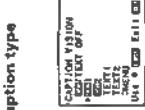
KU-27V10/23V10/C23V10/48 only

You can operate video equipment that has an infrared remote sensor with the supplied remote commander. For the operations, set the manufacturer's code number.

Setting the manufacturer's code



- 1 While pressing CODE SET, press 0-9 to enter the manufacturer's code number (see the chart on the next page). For example, to operate a Sony 8 mm VCR, press 0, 2 and ENTER.
- 2 Press $\Delta+$ or $\nabla-$ to select CAPTION VISION and press RETURN.
- 3 Press $\Delta+$ or $\nabla-$ to select the caption type and press RETURN.
- 4 Press $\Delta+$ or $\nabla-$ to select the input mode you want to label and press RETURN.



The code numbers for Sony equipment are assigned as follows:

01.....Beta, ED Beta VCR
02.....8 mm VCR
03.....VHS VCR (factory setting)
04.....MDP

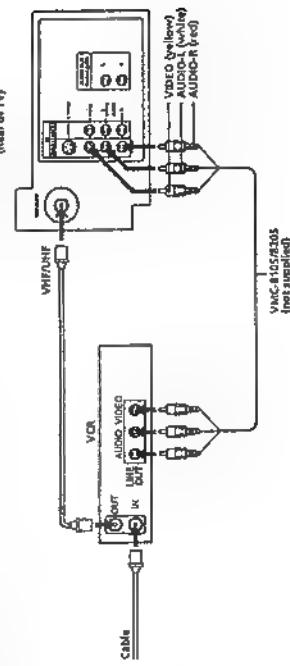
• KV-27V15/32V15

Step 1: Hookup

Connecting an antennicable TV system with a VCR

To connect your VCR to the TV, first check the model number of your TV and select the corresponding connection. For details on connection see the instruction manual of your VCR. Before making connection, disconnect the AC power cords of the equipment to be connected.

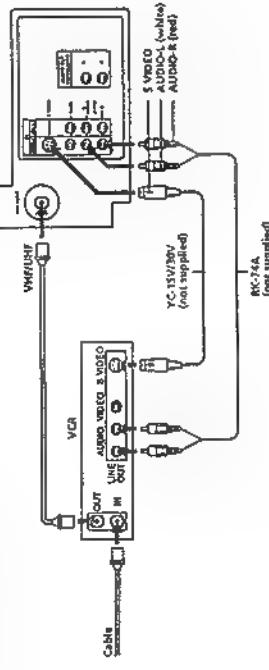
Without a cable box



Note
• To connect a manual VCR, connect the audio output of the VCR to AUDIO-L (mono) or VIDEO 1 IN on the TV.

To an S video equipped VCR without a cable box

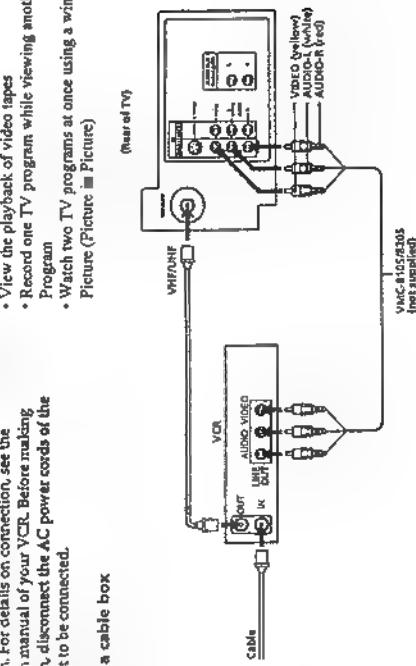
If your VCR has an S VIDEO output jack, hook up as follows and then set S VIDEO to ON on your TV (page 12). It is set to ON at the factory.



Note
• Video signals are composed of Y (luminance) and C (chroma) signals. The S connection sends the two signals separately preventing degradation, and gives better picture quality compared to conventional connection.

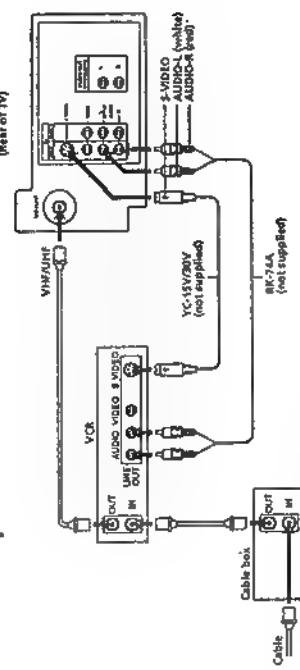
With a cable box

After making these connections, you will be able to do the following:
• View the playback of video tapes
• Record one TV program while viewing another
• Program
• Watch two TV programs at once using a window Picture (Picture in Picture)

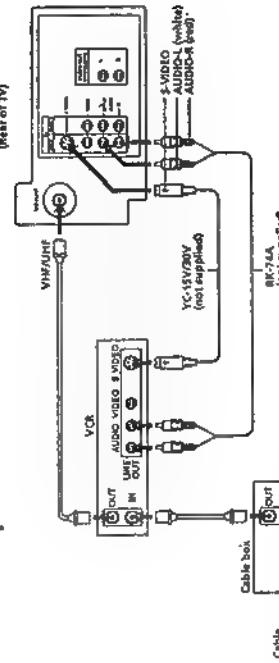
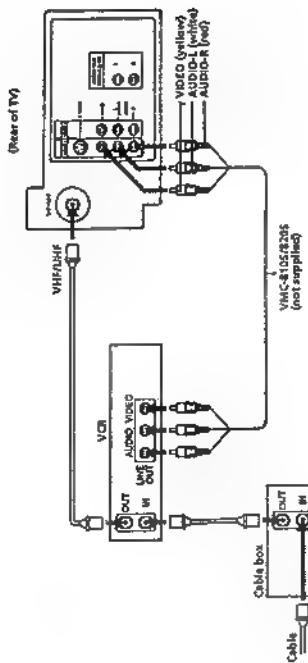


Note
• To connect a manual VCR, connect the audio output of the VCR to AUDIO-L (mono) or VIDEO 1 IN on the TV.

To an S video equipped VCR with a cable box



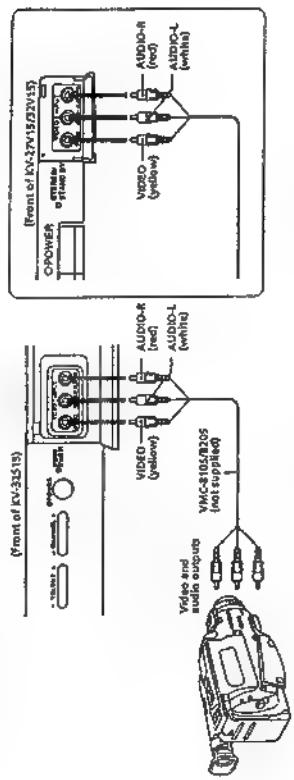
Note
• Video signals are composed of Y (luminance) and C (chroma) signals. The S connection sends the two signals separately preventing degradation, and gives better picture quality compared to conventional connection.



Connecting a camcorder

KV-27V15/225/32V15 only

This connection is convenient for viewing a camcorder.

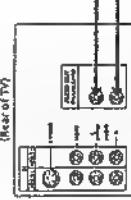


Note

- To connect a monaural camcorder, connect the audio output of the VCR to AUDIO L (mono) of VIDEO 2 INPUT on the TV.

Connecting an audio system

When connecting audio equipment, see page 20 for more information.



Connecting other Sony equipment with CONTROL S jack

KV-27V15/32V15 only

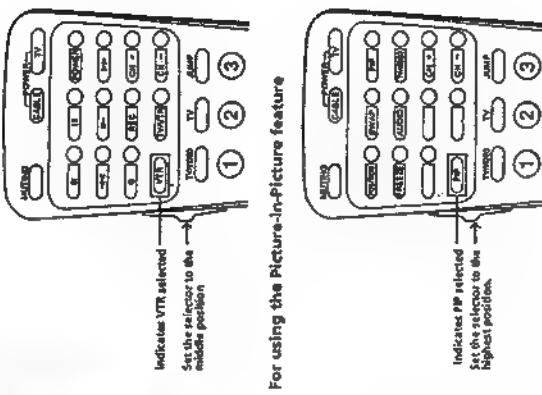
Connect the supplied cable box controller (Cable Mouse) to the CONTROL S OUT jack. Refer to the *Cable Mouse's manual* for details on the connection.

(See page 19)

Make the following connections to control the TV and connected equipment with one remote commander.

- To control other Sony equipment with the TV's remote commander, connect the input of the equipment to CONTROL S OUT jack on the TV.
- To control the TV with the remote commander of other Sony equipment, connect the output of the equipment to CONTROL S IN jack on the TV.

For operating video equipment



Step 2: Setting up the remote commander

Insert one size AA (R6) battery (supplied) by matching the + and - on the battery to the diagram inside the battery compartment.



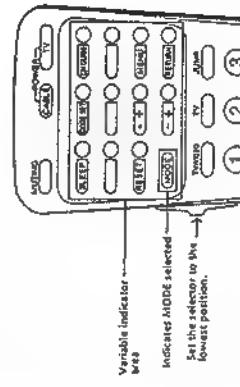
Notes

- With normal use, the battery should last for approximately six months.
- If you do not use the remote commander for an extended period of time, remove the battery to avoid possible damage from battery leakage.
- Do not handle the remote commander roughly. Do not drop it, step on it or let it get wet.
- Do not place the remote commander in direct sunlight, near a heater, or where the humidity is high.

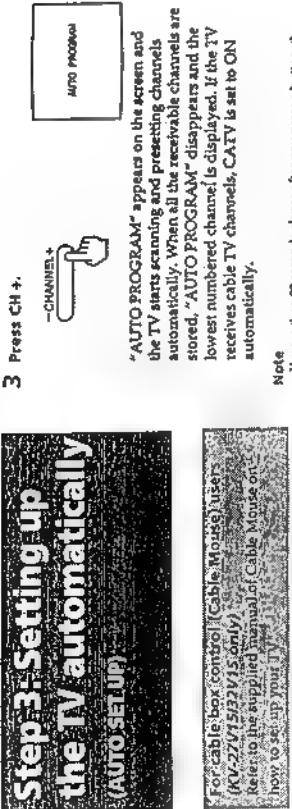
Using the remote commander

The upper half of the remote commander has three selectable operation modes. Each button in this area has three different functions. You can select the mode by sliding a selector on the left side.

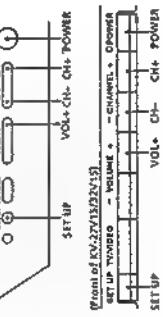
For normal TV viewing



Step 3: Setting up the TV automatically (AUTO SET UP)



- 3 Press CH +.
- 4 Press + or - to move the cursor (>) to AUTO PROGRAM. The AUTO PROGRAM menu appears.
- 5 Press CH + or - to move the cursor (>) to CH SET UP and press RETURN. The CH SET UP menu appears.
- 6 Press + or - to move the cursor (>) to CH ERASE/ADD and press RETURN. The CH ERASE/ADD menu appears.
- 7 When you finish, press MENU.



- 1 Press POWER to turn the TV on.
- 2 Press SET UP on the front of the TV.

The menu appears.



The main menu appears.



(continued)

- 2 Press + or - to move the cursor (>) to SET UP and press RETURN. The SET UP menu appears.
- 3 Press + or - to move the cursor (>) to CH SET UP and press RETURN. The CH SET UP menu appears.
- 4 Press + or - to move the cursor (>) to CH ERASE/ADD and press RETURN. The CH ERASE/ADD menu appears.
- 5 Erase and/or add the channel you want:
- To erase an unwanted channel:
(1) Make sure the cursor (>) is beside ERASE.
(2) Press CH + or - to select the channel you want to erase and,
- 6 To erase and/or add other channels, repeat step 5.
- 7 When you finish, press MENU.

Note
* If you erase or add a VHF or UHF channel, the cable TV channel with the same number is also erased or added, and vice versa.

(3) press RETURN.
The indication “-” appears beside the channel number, showing that the channel is erased from the preset memory.

Changing the menu language

Setting ■ video on or off

You can change the SVIDEO menu to ON or OFF.

- 1 Press TV/VIDEO to select VIDEO 1.
- 2 Press MENU.
- 3 Press + or - to move the cursor (>) to SET UP and press RETURN.
- 4 Press + or - to move the cursor (>) to S VIDEO and press RETURN.

Presetting channels

For cable box control (Cable Mouse) users
(KV-2775/3275 only)
Select to the appropriate channel of Cable Mouse.
Refer to the separate manual of Cable Mouse on how to preset channels for each screen.

You can preset TV channels easily by AUTO PROGRAM feature. You do not have to do this procedure if you execute AUTO SET UP (page 10). Do this procedure only when you want to set it manually.

- 1 Press MENU.
- 2 Press + or - to move the cursor (>) to CH SET UP and press RETURN.
- 3 Press + or - to move the cursor (>) to CH SET UP and press RETURN.
- 4 Set CABLE to ON or OFF:

(1) Make sure the cursor (>) is beside CABLE and press RETURN.
If the cursor is not beside CABLE, press + or - to move the cursor and press RETURN.
(2) Press + or - to select ON or OFF and, press RETURN.

- 4 Set CABLE to ON or OFF:

(1) Make sure the cursor (>) is beside CABLE and press RETURN.
If the cursor is not beside CABLE, press + or - to move the cursor and press RETURN.
(2) Press + or - to select ON or OFF and, press RETURN.

- 5 Press MENU to return to the original screen.

Note
• If the CH SET UP menu appears in black, the TV is set to a video input and you cannot select AUTO PROGRAM. Press TV/VIDEO or TV so that a channel number appears.
A channel number appears.

Setting cable TV on or off

Cable box control (Cable Mouse) users
(KV-2775/3275 only)
Select to the appropriate channel of Cable Mouse.
Refer to the separate manual of Cable Mouse on how to set Cable TV on or off.

If you have connected the TV to a cable TV system, set CABLE to ON, the factory setting. If not, set CABLE to OFF. You do not have to do this procedure if you execute AUTO SET UP (page 10). Do this procedure only when you want to set it manually.

- 1 Press MENU.
- 2 Press + or - to move the cursor (>) to SET UP and press RETURN.
- 3 Press + or - to move the cursor (>) to CH SET UP and press RETURN.
- 4 Set CABLE to ON or OFF:

- 4 Set CABLE to ON or OFF:

(1) Make sure the cursor (>) is beside CABLE and press RETURN.
If the cursor is not beside CABLE, press + or - to move the cursor and press RETURN.
(2) Press + or - to select ON or OFF and, press RETURN.

- 5 Press MENU to return to the original screen.

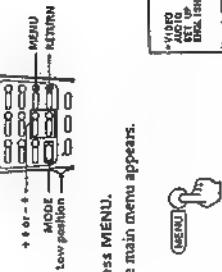
Note
• If the CH SET UP menu appears in black, the TV is set to a video input and you cannot select AUTO PROGRAM. Press TV/VIDEO or TV so that a channel number appears.
A channel number appears.

Setting ■ video on or off

You can change the SVIDEO menu to ON or OFF.

- 1 Press TV/VIDEO to select VIDEO 1.
- 2 Press MENU.
- 3 Press + or - to move the cursor (>) to SET UP and press RETURN.
- 4 Press + or - to move the cursor (>) to S VIDEO and press RETURN.

If you prefer Spanish to English, you can change the menu language.



- 1 Press MENU.
- 2 Press + or - to move the cursor (>) to SET UP and press RETURN.
- 3 Press + or - to move the cursor (>) to MODE and press RETURN.
- 4 Press + or - to move the cursor (>) to LANGUAGE and press RETURN.

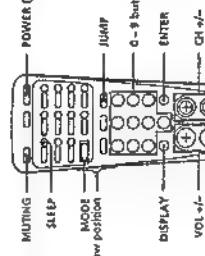


- 5 Press MENU to return to the original screen.

Note
• Certain parts of the SPANISH manual remain in English.

Watching the TV

For cable box connection (Cable Box Users)
(K-2270/15/22/17/15/14)
Refer to the supplied manual of Cable Box.
How to watch the TV using the cable box control.



1 Press POWER (TV) to turn the TV on.



If "VIDEO" appears on the screen, press the TV / VIDEO or TV button so that channel number appears.

2 Select the channel you want:
To select a channel directly
Press the 0 - 9 buttons and then press ENTER.



The channel can also be selected without pressing ENTER.
To scan through channels
Press CH +/- until the channel you want appears.



3 Press VOL +/- to adjust the volume.



Note
• Set the CABLE BOX / TV selector to TV.

Switching quickly between two channels

Press JUMP.
The channel you watched previously appears.



Pressing JUMP again switches back the channel.



Muting the sound.
Press MUTING.
"MUTING" appears on the screen.



To restore the sound, press MUTING again, or press VOL +.



Displaying on-screen information
Use this feature to check the channel number, channel caption (if set), and MTS mode (if SAP is selected).
Press DISPLAY.



To cancel the display, press DISPLAY again.



Setting the Sleep Timer
The TV stays on for the length of time you specify and then shuts off automatically.



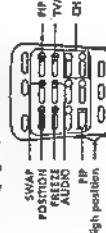
Press SLEEP repeatedly until the time (minutes) you want appears.
Each time you press SLEEP, the time changes as follows: 30 → 60 → 90 → OFF.



To cancel the Sleep Timer, press SLEEP repeatedly until "SLEEP OFF" appears, or turn the TV off.

Watching two programs at a time — PIP

The Picture-in-Picture (PIP) feature allows you to watch both the main picture and a window picture simultaneously.
You can watch two TV channels at a time with this feature. See "Connecting an antenna/cable TV system with a VCR" (page 6) for connections.



Displaying a window picture

Press PIP.
Input source mode or TV channel for the main picture



Main picture →
Window picture →
(1/3 size)
Input source mode or TV channel for the window picture

Press PIP again to display a smaller window picture.



To remove the window picture, press PIP again.
Notes
• If the main picture is not receiving an image, the window picture may be in black and white.

- The window picture may be affected by the condition of the main picture.
- The window picture sound is also output from the VARIABLE/FIX AUDIO OUT jacks when you listen to it.

Changing the window picture Input mode

Press TV/VIDEO in the PIP control area to select the Input mode.
Each time you press TV/VIDEO, "TV", "VIDEO 1", "VIDEO 2" and "VIDEO 3 (except for KV-2755/29R5/5J)" appear in sequence.



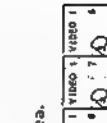
A window picture will appear in the same input mode as the last time you used PIP.

Listening to the sound of the window picture
Press AUDIO.

The ♫ symbol appears for a few seconds, indicating that the window picture sound is being received.



To restore the main picture sound, press AUDIO again.
Changing TV channels in the window picture
Press CH +/- in the PIP control area.



To restore the main picture, press CH +/-.

Operations | 15

Adjusting Screen brightness automatically (LUMISPONDER)



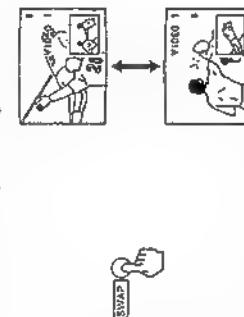
When watching TV programs, you can adjust the quality of the picture to suit your taste. You can adjust the picture of video input(s) as well. These settings are stored separately from those for the TV picture.



1 Press MENU.
2 Make sure the cursor (>) is beside VIDEO and press RETURN.



To restore the normal screen, press FREEZE again.
Swapping the main and window pictures
Press SWAP.
Each time you press SWAP, the images from the main and window pictures switch places along with the sound.



Note
• The channels being received through the AUX jack cannot be displayed as a window picture (KV-27V13/27V15 only).

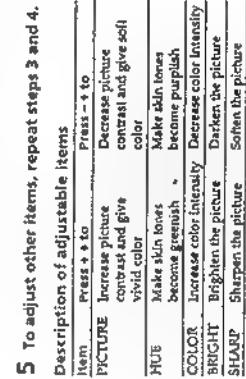
Adjusting the picture (VIDEO)



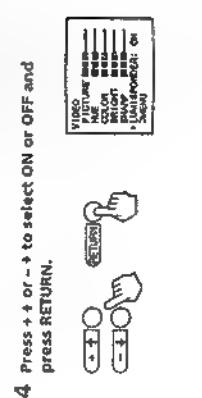
(2) Press RETURN.
The new setting appears in the VIDEO menu.



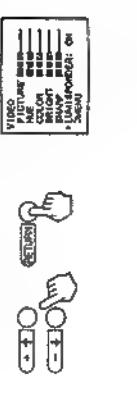
For details on each item, see "Description of adjustable items" below.



5 To adjust other items, repeat steps 3 and 4.
PICTURE
Item Press + & to
Increase picture contrast and give soft color
Decrease picture contrast and give soft color
HUE Make skin tones become fleshier
COLOR Increase color intensity
BRIGHT Brighten the picture
SHARP Sharpen the picture
To restore the factory settings
Press RESET while the VIDEO menu is displayed.
All the settings are restored to the factory settings.



4 Press + or - to select ON or OFF and press RETURN.



5 Press + or - to select LUMISPONDER and press RETURN.



6 Press RETURN.

Changing the position of the window picture

Press POSITION.
Each time you press POSITION, the window picture will move counterclockwise on the screen.

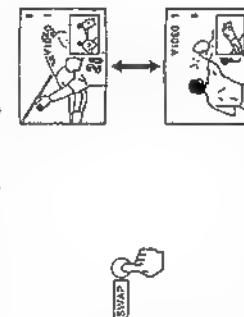


Freezing the window picture

This feature is useful when you want to write down a recipe from a cooking program, a displayed address or a phone number and so on.
Press FREEZE.



To restore the normal screen, press FREEZE again.
Swapping the main and window pictures
Press SWAP.
Each time you press SWAP, the images from the main and window pictures switch places along with the sound.

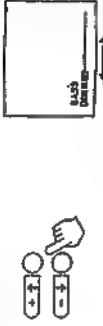


Note

• The channels being received through the AUX jack cannot be displayed as a window picture (KV-27V13/27V15 only).

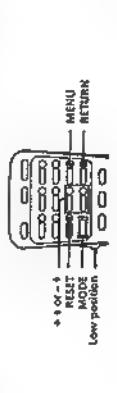
Adjusting the sound (AUDIO)

4 Adjust the selected item:
(1) Press + or - to adjust the item and,
then press RETURN.



(2) Press RETURN.
The new setting appears in the AUDIO menu.

You can adjust the quality of the TV sound to suit your taste.
You can adjust the sound of video input(s) as well.
These settings are stored separately from those for the TV sound.



4 For example:

- (1) To adjust bass, press + or - to select BASS and,
then press RETURN.
- (2) Press RETURN.

Note
• When SPEAKER (page 20) is OFF and AUDIO CUT (page 26)
is FIXED condition, the sound is set to mid-level and its volume
is adjusted.



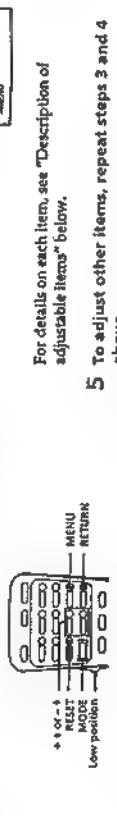
Listening to surround sound (SURROUND)

4 Adjust the selected item:
(1) Press + or - to adjust the item and,
then press RETURN.



(2) Press RETURN.
The new setting appears in the AUDIO menu.

SURROUND feature simulates sound reproduction with the atmosphere of a movie theater or a concert hall. Surround sound is only effective for stereo programs.



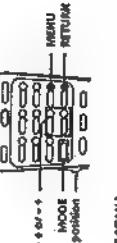
To restore the factory settings:
Press RESET while the AUDIO menu is displayed.

- When SPEAKER (page 20) is OFF and AUDIO CUT (page 26)
is FIXED condition, the sound is set to mid-level and its volume
is adjusted.
- When SURROUND is set to ON, the volume of the speakers
is automatically adjusted to match the volume of the main
speakers.



Selecting stereo or bilingual programs (MTS)

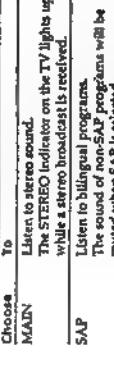
The Multichannel TV Sound (MTS) feature allows you to enjoy stereo sound or Second Audio Programs (SAP) at your choice. The initial setting is stereo sound (MAIN).



1 Press MENU.

2 Press + or - to select AUDIO and press RETURN.

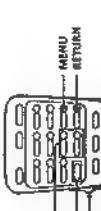
- 3 Press + or - to select MTS and press RETURN.
- 4 Press + or - to select MAIN, SAP, or MONO and press RETURN.



- Stereo and SAP sounds are subject to program sources.
- Note**

Setting the speaker switch (SPEAKER)

You may switch off the TV speakers when, for example, you want to listen to the sound through a stereo system.



1 Press MENU.

2 Press + or - to select SPEAKER and press RETURN.

3 Press + or - to select SPEAKER SWITCH and press RETURN.



4 Make sure the cursor (>) is beside SPEAKER and press RETURN.



5 Press + or - to select ON or OFF and press RETURN.

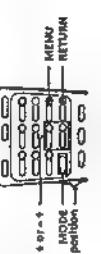


VAR: Sound output varied according to the TV settings. You can adjust the volume, bass, treble and balance.

FIXED: Sound output is always fixed to a certain level. You cannot adjust the volume.

Setting audio out (AUDIO OUT)

You can select audio out to variable (variable) when SPEAKER is set to OFF. Audio out is variable when SPEAKER is set to ON.



1 Press MENU.

2 Press + or - to select AUDIO OUT and press RETURN.

3 Press + or - to select SPEAKER SWITCH and press RETURN.



4 Press + or - to select VAR or FIXED and press RETURN.



5 Press + or - to select ON or OFF and press RETURN.



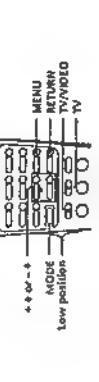
Customizing the channel number buttons (CH CAPTION GUIDE)



For cable box control [Cable Mouse] users:
When the remote control is connected to a cable box, you can use the remote control to customize the channel number buttons.

You can choose up to 12 channels caption each channel, and assign a specific channel number button to each channel. This feature allows you to select your favorite channels easily by name. For example, you can name channel 20 "ESPN," and assign the channel number 4 button to it.

Setting captions to favorite channels



1 Press TV/VIDEO or TV to select TV mode.

2 Press MENU.

3 Press + or - to select SET UP and press RETURN.

4 Press + or - to select CH CAPTION/GUIDE and press RETURN.



(1) Repeat steps (1) and (2) to select the remaining letters and press RETURN.



5 Press RETURN again.



(continued)

- 6 Press + or - to select a channel guide number button and press RETURN.
Each time you press + or - the channel positions change to read in turns. The channel number button you select will be the one you press to call up your favorite channel.



- 7 Press + or - to select the channel that you want to caption and press RETURN.



- 8 Enter the letters (up to four) to caption the channel:
(1) Press + or - to select the first letter.
Each time you press + or - the letter changes as shown below and,
0---1---2---3---4---5---6---7---8---9---A---B---C---D---E---F---G---H---I---J---K---L---M---N---O---P---Q---R---S---T---U---V---W---X---Y---Z

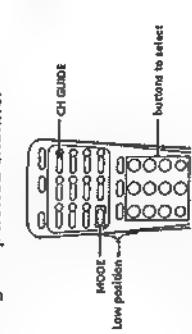


9 Repeat step 5 to 7 to caption other channels.

To erase a caption
Press RESET after step 5.

NOTE
• The position number you already selected appears in yellow.
• If the CH CAPTION/GUIDE menu appears in black, the TV is set to a video input and you cannot select CH CAPTION/GUIDE.
• If more than 90 seconds elapse after you press a button, the menu disappears automatically.

Selecting a captioned channel



1 Press CH GUIDE.

The CHANNEL GUIDE menu appears showing channel captions and the corresponding channel number buttons.



2 Press a channel number button, the DISP or ENT button to select the channel you want.

To cancel the CHANNEL GUIDE menu
Press CH GUIDE again.

4 Press + or - to select the input mode
you want to label and Press RETURN.



Setting video labels
(VIDEO LABEL)

5 Press + or - to select the label and press RETURN.



Each time you press + or - , the label changes as shown below.

VIDEO 1
VIDEO 1 → 1 VIDEO → Beta → 2 mm → VHS → 10
VIDEO 2
VIDEO 2 → Beta → 4 mm → VHS → 10
VIDEO 3
VIDEO 3 → Beta → 8 mm → VHS → 10

6 Repeat steps 4 and 5 to label other input modes.

Note
• If more than 90 seconds elapse after you press a button, the menu disappears automatically.

1 Press MENU.

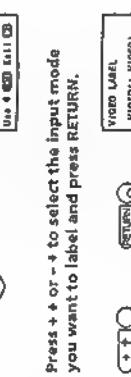
Press + or - to select SET UP and press RETURN.



3 Press + or - to select VIDEO LABEL and press RETURN.



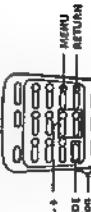
4 Press + or - to select the input mode
you want to label and Press RETURN.



Displaying Caption Vision (CAPTION VISION)

KV-2751S/27V15/32S/32V5 only

Some source programs provide with Caption Vision (Closed Caption). To display Caption Vision, select either CC1, CC2, TEXT1, or TEXT2 from the menu. CC1 or CC2 shows you a caption, that is a printed version of the dialog or sound effects of a program. (The mode should be set to CC1 for most programs.) TEXT1 or TEXT2 shows you text, that is information presented using half to full of the screen. It is not usually related to the program.



1 Press MENU.

Press + or - to select CAPTION VISION and press RETURN.

2 Press + or - to select the caption type and press RETURN.

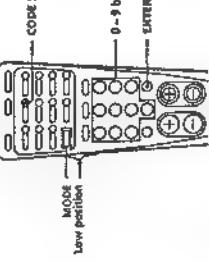
3 Press + or - to select the caption type and press RETURN.

Note
• Captions may appear with a white box or another error instead of a certain word. Poor reception of TV programs also causes errors in Caption Vision.

Operating video equipment

You can operate video equipment that has an infrared remote sensor with the supplied remote commander. For the operations, set the manufacturer's code number.

Setting the manufacturer's code



While pressing CODE SET, press 0 - 9 to enter the manufacturer's code number (see the chart in the right column). For example, to operate a Sony 8 mm VCR, press 0, II and ENTER.



The code numbers for Sony equipment are assigned as follows:

- Beta, ED Beta VCR
- 8 mm VCR
- 03 VHS VCR (Factory preset of Remote Commander)

Note

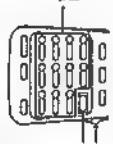
* If the video equipment does not have a certain function, the corresponding button on this remote commander will not operate.

- * More than one code number is listed, try entering them one by one, until you come to the correct code for your equipment.
- * In some rare cases, you may not be able to operate your non-Sony video equipment with this remote commander. This is because your equipment may use a code that is not provided with this remote commander. In this case, please use the equipment's own remote control unit.

Caution

When you remove a battery from the remote commander, the code may revert to 03. Reset the code each time you replace the battery, if necessary.

Operating video equipment



Use the video operating buttons on the remote commander to operate the video equipment.

Operating a VCR

To turn on or off
Press POWER

To change channels
Press CH + / -

To record
Press ■ and REC simultaneously

To play
Press ▶

To stop
Press ■

To fast forward...
Press ▶▶

To rewind the tape
Press ▶◀

To pause
Press II

To search the picture
forward and backward
Press ▶▶ or ▶◀ during playback

Operating the laser-disc player
To play
Press ▶

To stop
Press ■

To pause
Press II

To resume normal playback,
Press again.
Keep pressing ▶▶ or ▶◀ during playback
forward and backward
To resume normal playback
release the button.

To search the chapter
Press CH + / -

Note

* If the video equipment does not have a certain function, the corresponding button on this remote commander will not operate.

Operating a cable box

For cable box control (Zenith® model) users

(U.S.A., Canada, Australia, New Zealand)

Set the CABLE BOX/T.V. selector to CABLE

BOX.

Follow these instructions to set the manufacturer's code which will enable you to operate a connected cable box with the pre-programmed remote commander. For example, you can set the remote commander to operate a connected Zenith cable box.

1 Set the CABLE BOX/T.V. selector to CABLE

BOX.

2 While pressing CODE SET, press 6 and 8

(Zenith's code number — see chart on the next page) and ENTER.

ENTER

+

ENTER

ENTER

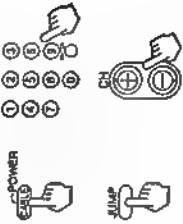
ENTER

ENTER

ENTER

{continued}

3 Use POWER(CABLE) and the TV control buttons (0 ~ 9, ENTER, JUMP, and CH +/-) to operate the cable box.



To operate the TV
Set the CABLE BOX/TV selector to TV. Then use the TV control buttons to control the TV.
For more details on operating the cable box
Refer to the operating instructions that come with the cable box.

Manufacturers and code numbers (cable box)	
Manufacturer	Code number
JERROLD	60, 61, 62, 63, 64, 65, 73
PIONEER	69, 70
SCIENTIFIC ATLANTA	66, 67
TCOM	71, 72
ZENITH	69

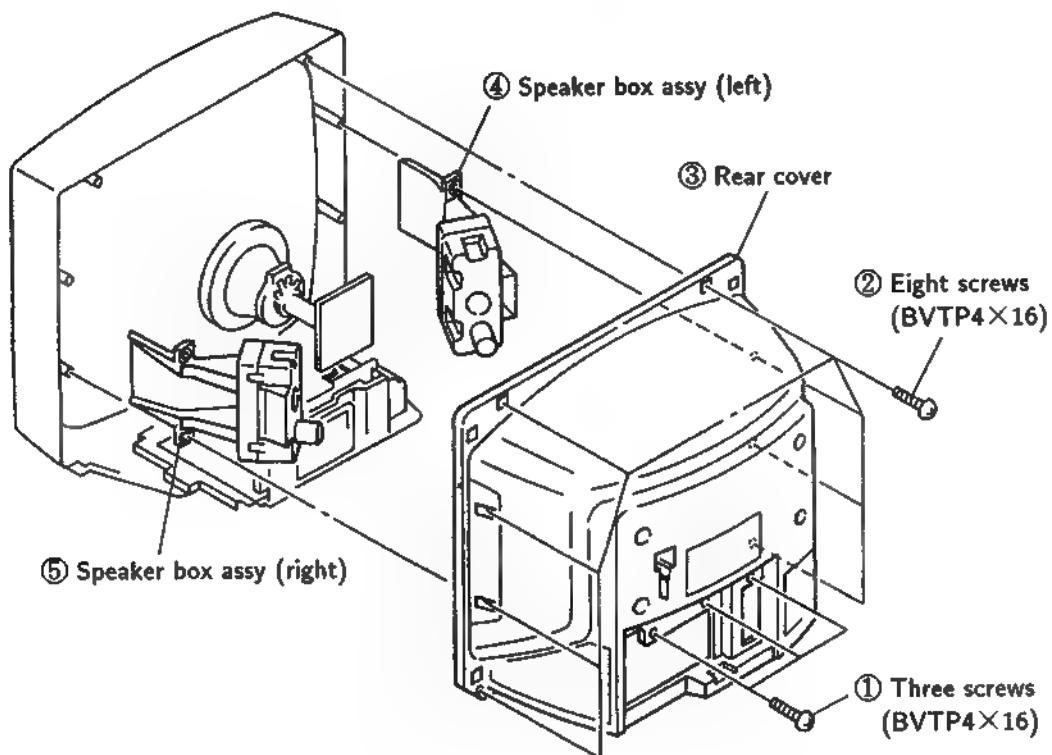
Notes

- If more than one code number is listed, try entering them one by one until you come to the correct code for your equipment.
- If you enter a new code number, the code number you previously entered at that setting is erased.
- In some cases, your equipment may use a code that is not provided with this remote commander and you may not be able to operate your cable box with the supplied remote commander. In this case, use the equipment's own remote control unit.
- When you remove a battery from the remote commander, the code may be erased. Reset the code each time you replace the battery, if necessary.

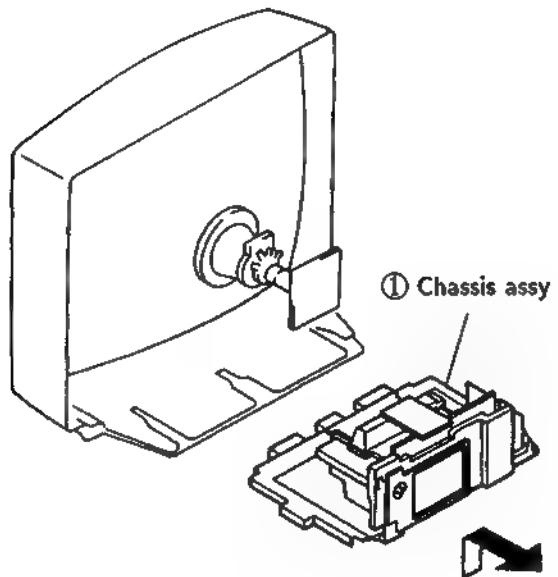
KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101

SECTION 2 DISASSEMBLY

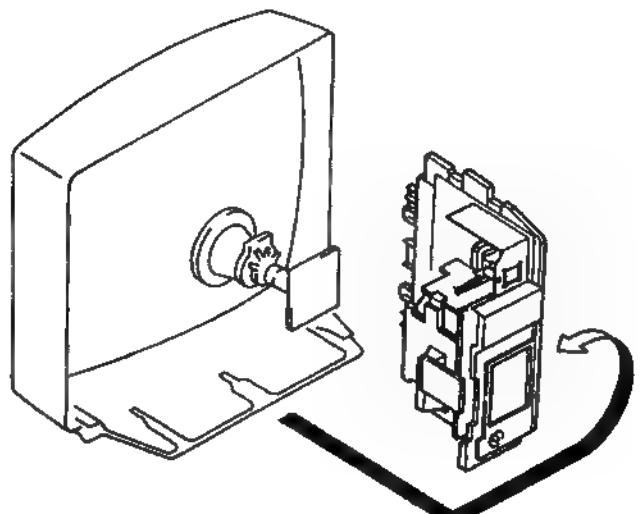
2-1. REAR COVER AND SPEAKER BOX ASSEMBLY REMOVAL



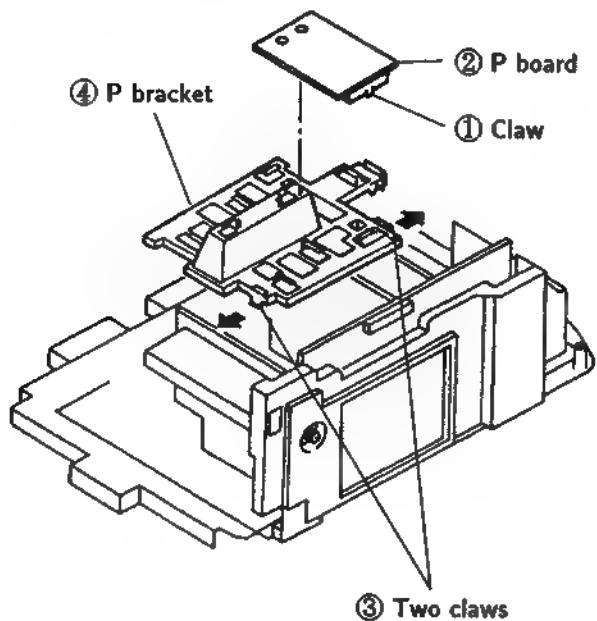
2-2. CHASSIS ASSEMBLY REMOVAL



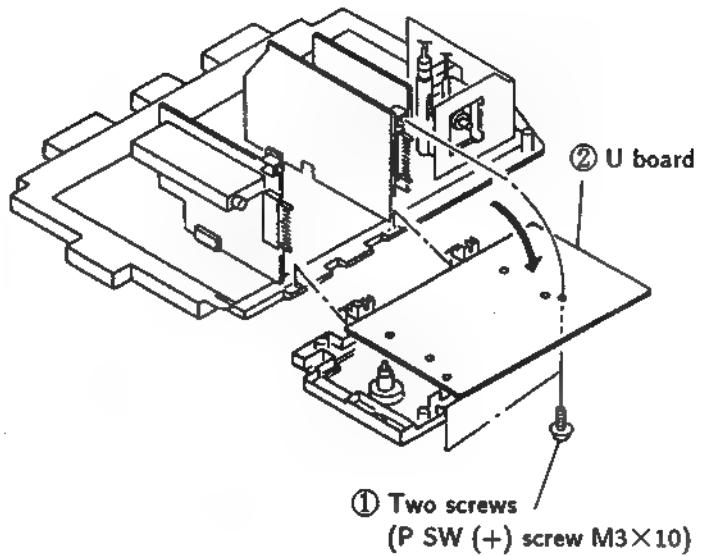
2-3. SERVICE POSITION



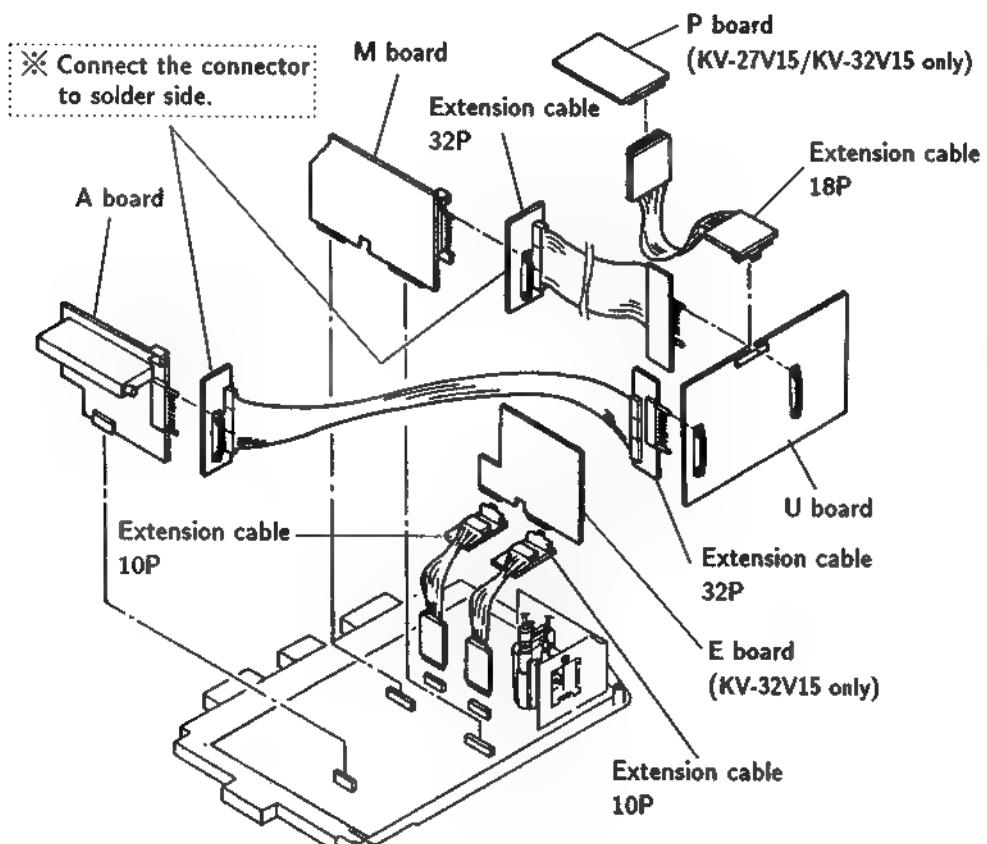
2-4. P BOARD AND BRACKET REMOVAL (KV-27V15/KV-32V15 only)



2-5. U BOARD REMOVAL



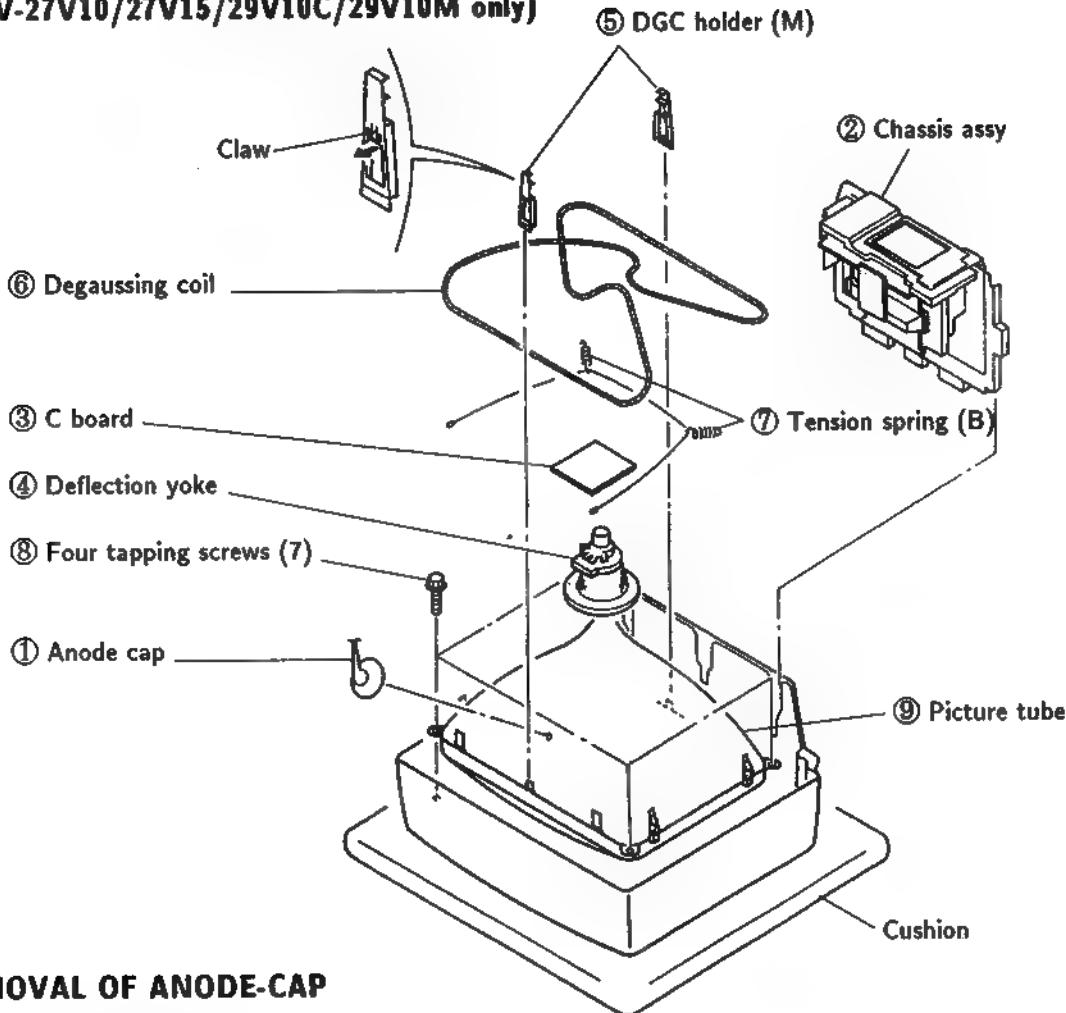
2-6. EXTENSION CABLE



Exterior
Extension cable 18P 3-702-558-01
10P 3-702-557-01
32P 3-702-592-01 (A-U) 3-702-593-01 (M-U)

2-7. PICTURE TUBE REMOVAL (1)

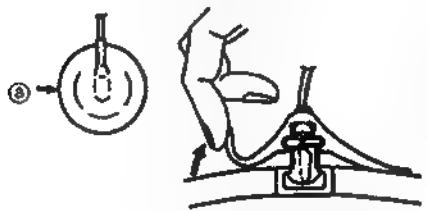
(KV-27V10/27V15/29V10C/29V10M only)



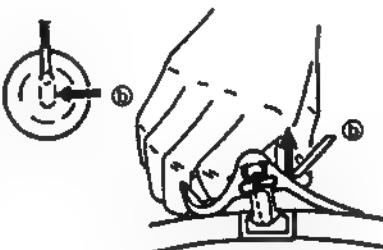
• REMOVAL OF ANODE-CAP

NOTE : Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon painted on the CRT, after removing the anode.

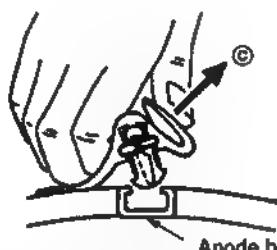
• REMOVING PROCEDURES



- ① Turn up one side of the rubber cap in the direction indicated by the arrow ①.



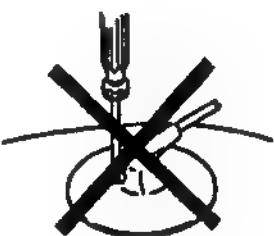
- ② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ②.



- ③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up II in the direction of the arrow ③.

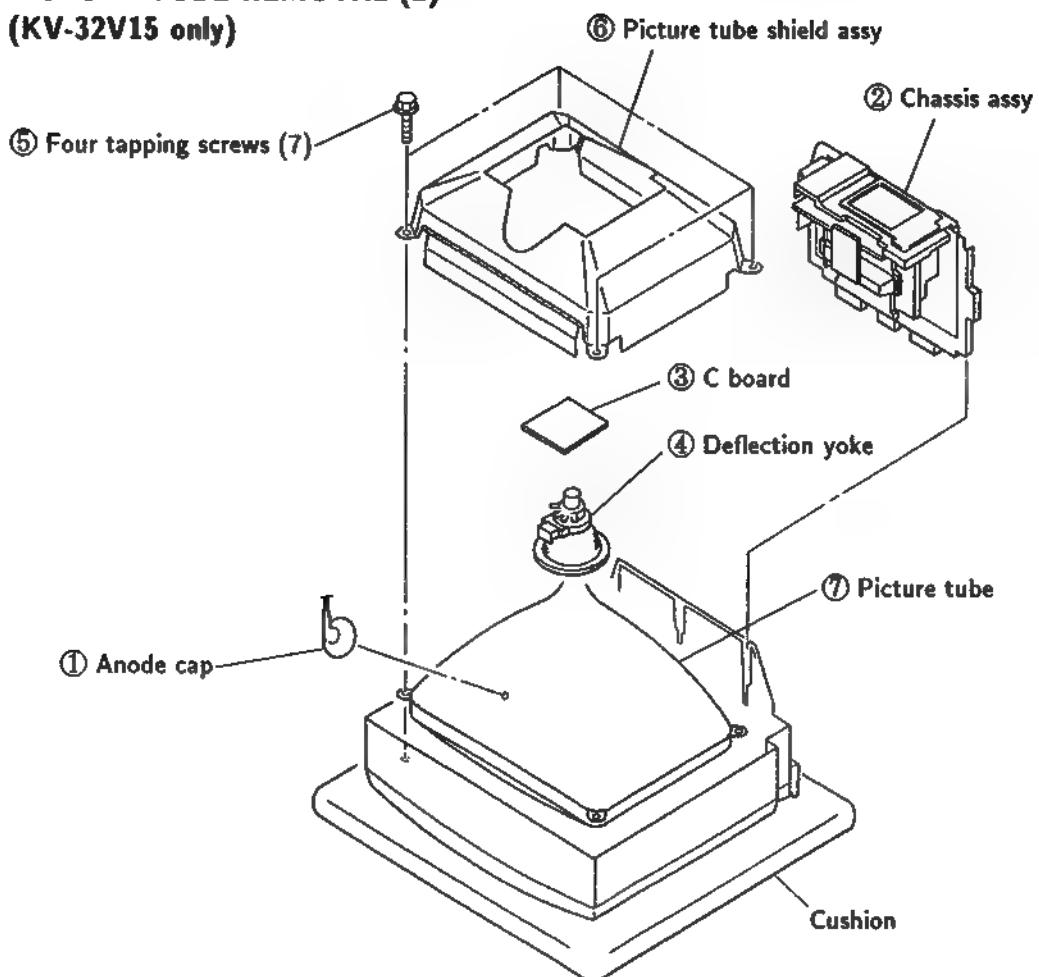
• HOW TO HANDLE AN ANODE-CAP

- ① Don't hurt the surface of anode-caps with sharp shaped material!
- ② Don't press the rubber hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.
- ③ Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.



2-7. PICTURE TUBE REMOVAL (2)

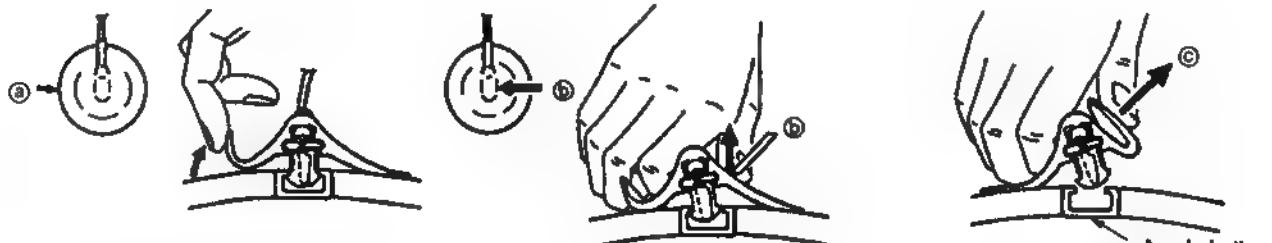
(KV-32V15 only)



• REMOVAL OF ANODE-CAP

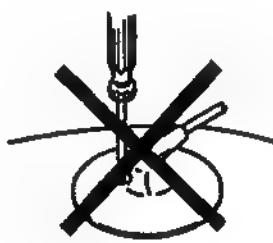
NOTE : Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon painted on the CRT, after removing the anode.

• REMOVING PROCEDURES

- 
- ① Turn up one side of the rubber cap in the direction indicated by the arrow ②.
 - ② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ②.
 - ③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ②.

• HOW TO HANDLE AN ANODE-CAP

- ① Don't hurt the surface of anode-caps with sharp shaped material!
- ② Don't press the rubber hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.
- ③ Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.



SECTION 3

SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switch should be set as follows unless otherwise noted :

PICTURE control RESET
BRIGHTNESS control center

Preparations :

- In order to reduce the influence of geomagnetism on the set's picture tube face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

- Input the white signal with the pattern generator.
Contrast }
Brightness } normal
- Set the pattern generator raster signal to green.
- Move the deflection yoke to the rear and adjust with the purity control so that the green is at the center and the blue and the red take up equally sized areas on each side.
(See Figures 3-1 through 3-3.)
- Move the deflection yoke forward and adjust so that entire screen is green. (See Figure 3-1.)
- Switch the raster signal to blue, then to red and verify the condition.
- When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
- If the beam does not land correctly in all the corners, use a magnet to adjust it.
(See Figure 3-4.)

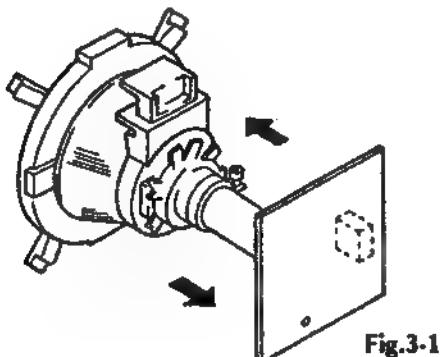


Fig.3-1

Perform the adjustments in order as follows :

- Beam Landing
- Convergence
- Focus
- White Balance

Note : Test Equipment Required.

- Color-bar/Pattern Generator
- Degausser
- Oscilloscope

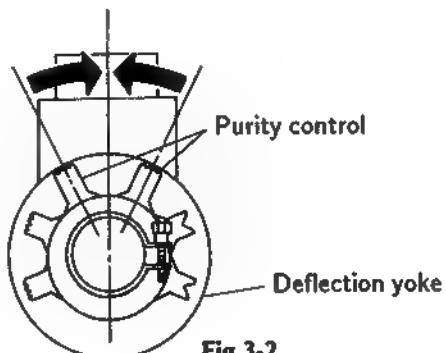


Fig.3-2

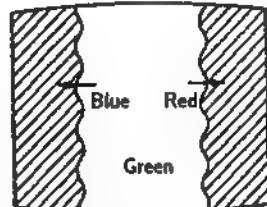


Fig.3-3

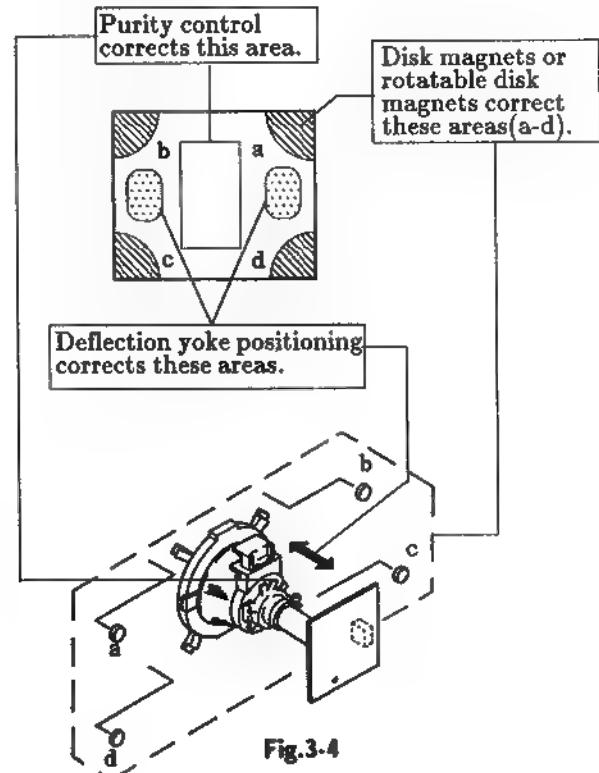


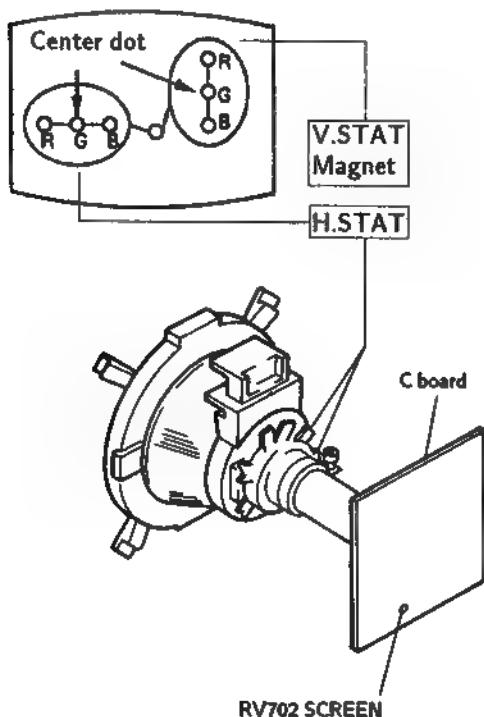
Fig.3-4

3-2. CONVERGENCE

Preparation :

- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

(1) Horizontal and Vertical Static Convergence



1. V. STAT Adjustment

Turn the V. STAT tabs to left or right so that the vertical red, green and blue dots converge in the center of the screen.

2. H. STAT Adjustment

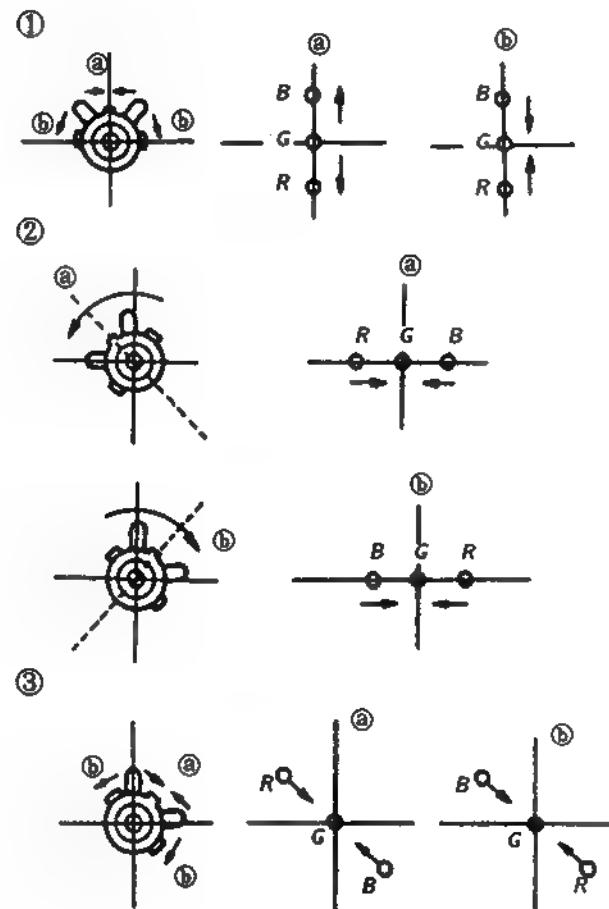
Simultaneously turn the 2 V. STAT tabs in the same direction so that the horizontal red, green and blue dots converge in the center of the screen.

Note : Do not move the purity tab during adjustment with the V. STAT tab. If the purity tab is moved, the convergence condition will change, and possibly lead to misadjustment of a different yoke.

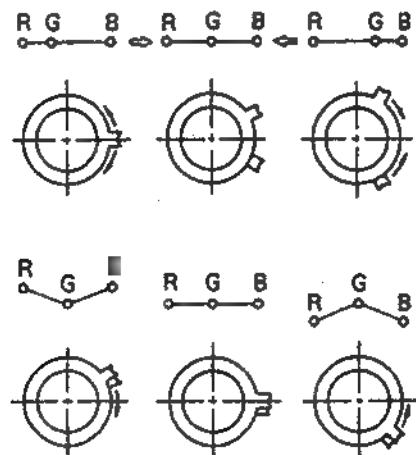
- Tilt the V.STAT tabs and adjust the static convergence by turning the V.STAT tabs to the left or right.



4. The V.STAT tabs are moved in the direction of the ② and ⑥ arrows and the red, green and blue points move as shown below.



- Operation of BMC (Hexapole) Magnet



- The respective dot positions resulting from moving each magnet interact, so be sure to perform adjustment while tracking.

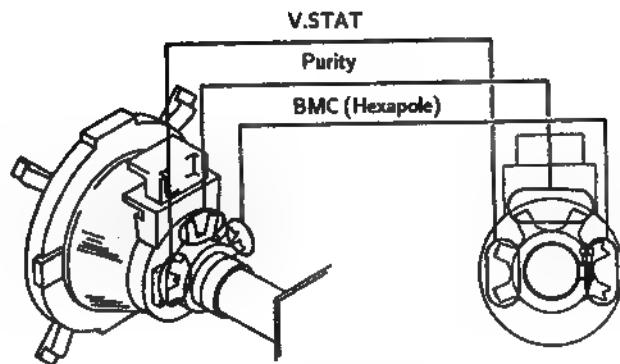
Use the V.STAT tabs to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).

(2) Dynamic Convergence Adjustment

Preparations :

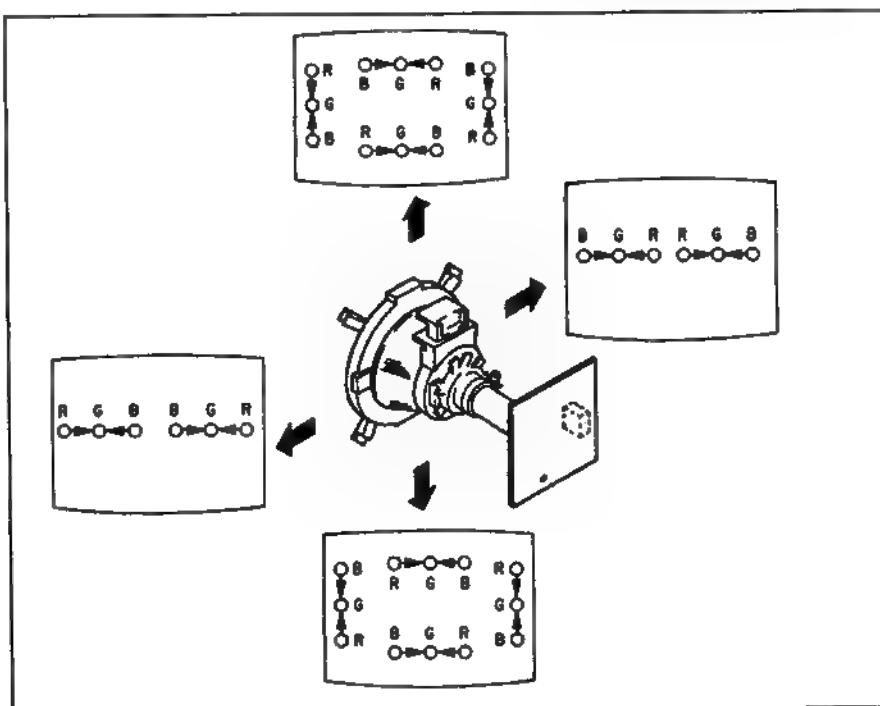
- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.

 - Slightly loosen the deflection yoke screws.
 - Remove the deflection yoke spacer.



- Y separation axis correction magnet adjustment**

- Receive the cross-hatch signal, and adjust [PIX] to "MIN" and [BRT] to "standard".
- Adjust the deflection yoke to the upright condition when it hits the CRT.
- Adjust so that the Y separation axis correction magnet on the neck assembly is symmetrical at the top and bottom (open state).
- Return the deflection yoke to its original position.
- Move the deflection yoke as shown in the figure below and optimize the convergence.
- Tighten the deflection yoke screws.
- Install the deflection yoke spacer.

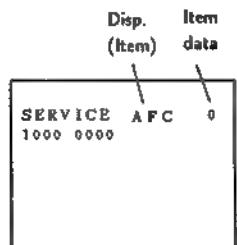


(3) Dynamic Convergence Circuit Adjustment

SERVICE MODE PROCEDURE

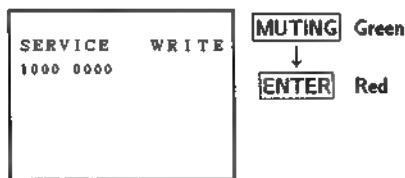
1. Standby mode.(Power off)
2. **DISPLAY** → **5** → **VOL (+)** → **POWER** on the Remote Commander. (Press each button within a second.)

SERVICE ADJUSTMENT MODE IN



3. The CRT displays the item Being adjusted.
4. Press **1** or **4** on the Remote Commander to select the item.
5. Press **3** or **6** on the Remote Commander to change the data.
6. Press **MUTING** then **ENTER** to write into memory.

SERVICE ADJUSTMENT MODE MEMORY



7. Press **8** then **ENTER** on the Remote Commander to initialize.



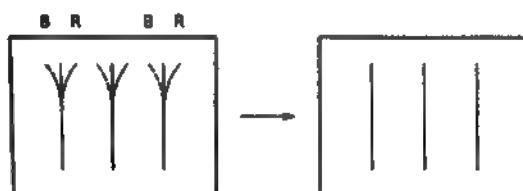
8. Turn set off and on to exit.

- Set to Service Mode.
- Input a cross-hatch signal.
- Press **1** and **4** serect an item of adjustments.
- Adjust **3** and **6** to the best picture.

No.	Disp.	Item	Ave.Data
40	UYBO	Upper Y-Bow	31
41	LYBO	Lower Y-Bow	25
42	HAMP	H. Amp	33
43	HTIL	H. Tilt	33
44	UCBO	Upper C-Bow	38
45	UTIL	Upper Tilt	40
46	LCBO	Lower C-Bow	41
47	LTIL	Lower Tilt	46
48	DCSH	DC Shift	37

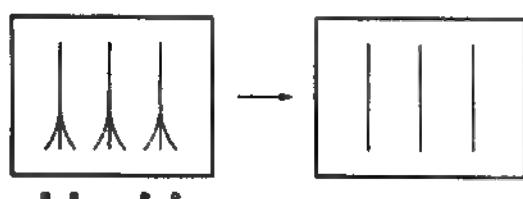
U. YBOW

Select UYBO with **1** and **4**



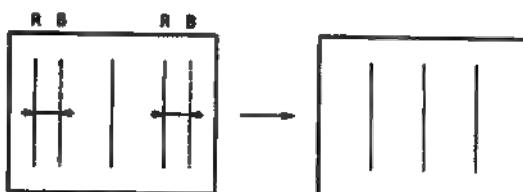
L. YBOW

Select LYBO with **1** and **4**



H. AMP

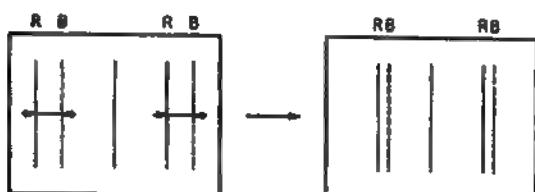
Select HAMP with **1** and **4**



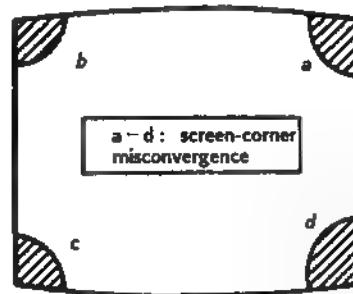
KV-27V10/27V15
 RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
 RM-Y117 RM-Y117 RM-Y121
 RM-CM101

H. TILT

Select HTILT with [1] and [4]

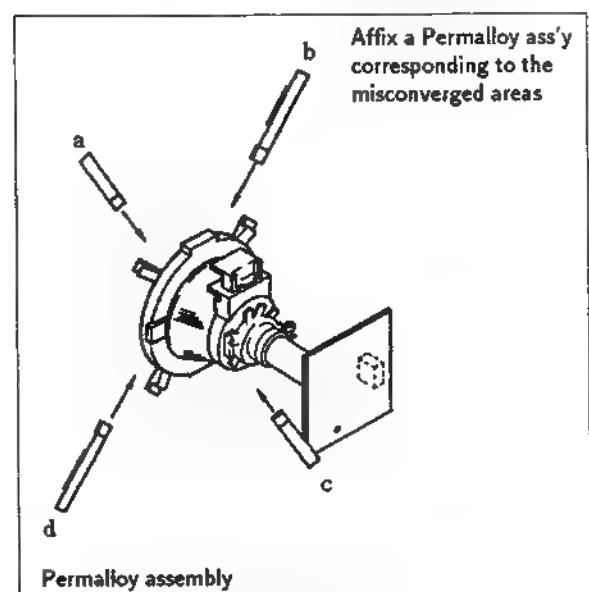
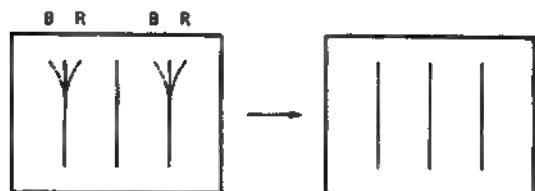


(4) Screen-corner Convergence



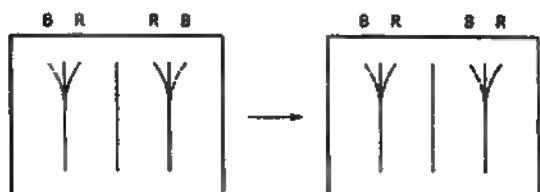
U. CBOW

Select UCBO with [1] and [4]



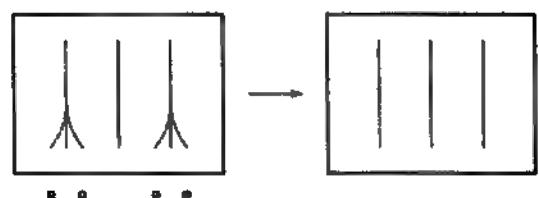
U. TILT

Select UTIL with [1] and [4]



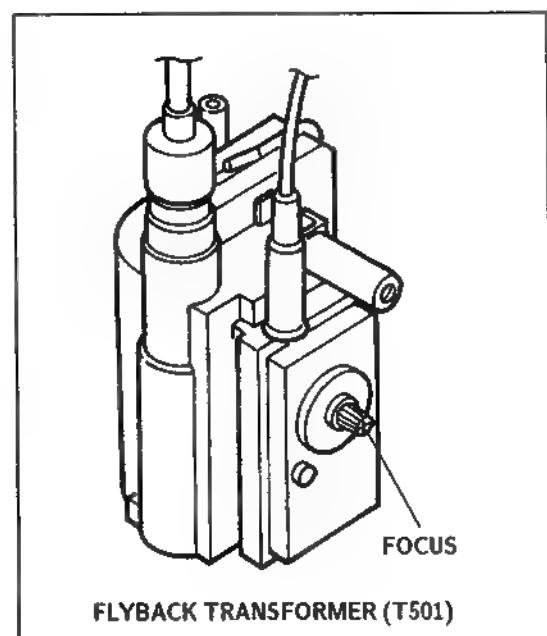
L. CBOW

Select LCBO with [1] and [4]



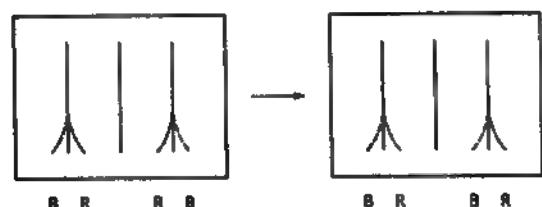
3-3. FOCUS ADJUSTMENT

Adjust FOCUS control on the flyback transformer for a best focus.



L. TILT

Select L. TIL with [1] and [4]



3-4. G2 (SCREEN) AND WHITE BALANCE ADJUSTMENTS

1. G2 (SCREEN) ADJUSTMENT (RV 702)

- Set the PICTURE and BRIGHTNESS to normal.
- Apply DC voltage of 170 V to the cathodes of R, G and B from DC stabilized power source.
- While watching the picture, adjust the G2 control (RV 702) to just the retrace line disappears.

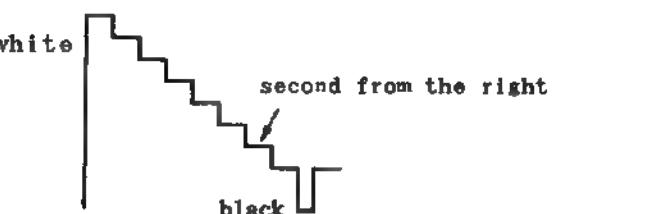
2. WHITE BALANCE ADJUSTMENTS

No.	Disp.	Item	Ave. Data
14	GAMP	Green Amp	20
15	BAMP	Blue Amp	17
II	GCUT	Green Cut-off	7
17	BCUT	Blue Cut-off	8
22	SBRT	Sub Bright	35

- Input an entire white signal.
- Set to service adjustment mode.
- Set the PICTURE and BRIGHT to minimum.
- Adjust with SBRT if necessary.
- Select G CUT and II CUT with 1 and 4.
- Adjust with 3 and 6 for the best white balance.
- Set the PICTURE and BRIGHT to maximum.
- Select GAMP and BAMP with 1 and 4.
- Adjust with 3 and 6 for the best white balance.
- Write into the memory by pressing MUTING then ENTER.

3. SUB BRIGHT ADJUSTMENT

- Set to service mode.
- Input a staircase signal of black and white from the pattern generator.
- BRIGHTNESS ... RESET
PICTURE minimum
- Select SBRT with 1 and 4, and adjust SUB BRIGHT level with 3 and 6 so that the stripe second from the right is dimly lit.



SECTION 4 SAFETY RELATED ADJUSTMENTS

☒ R511 CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components (marked with ☒ on the schematic diagram). PM501, R338, R511, R632, R645, R650

①

- Preparation before confirmation
 - Remove R635 on the D board and connect a variable resistor (RV1: about $4.7k\Omega$ - $10k\Omega$) between pin ① of IC601 and B+ line.
 - Supply 130 ± 2.0 V AC to with variable autotransformer.

2. Hold-down operation confirmation

- Turn the POWER switch ON, and receive entirely white signals and adjust ABL current to $1760\pm 50\mu A$ with PICTURE and BRIGHT etc controls.
- Increase B+ line voltage gradually by adjusting the resistor of RV1. Confirm that the minimum voltage is less than 142.5V DC (27 inch) 140.0V DC (32 inch) whereby the raster disappears during operation of hold-down circuit.

NOTE: When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.

- Turn the POWER switch ON, and receive dot signals and adjust ABL current to $160\pm 50\mu A$ with PICTURE and BRIGHT etc controls.
- Increase B+ line voltage gradually by adjusting the resistor of RV1. Confirm that the minimum voltage is less than 145.0V DC (27 inch), 143.5V DC (32 inch) whereby the raster disappears during operation of hold-down circuit.

NOTE: When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.

3. Hold-down readjustment

When step 2 is not satisfied, readjustment should be performed by altering the resistance value of R511 (a component marked with ☒).

☒ R524 CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components (marked with ☒ on the schematic diagram). IC601, PM501, D504, C598, R338, R509, R524, R632, R635, R645, T501

②

1. Preparation before confirmation

- Turn the POWER switch ON, and receive entirely white signals and set the PICTURE and BRIGHT controls to maximum.
- Confirm that voltage of the check terminal of TP-85 (D BOARD) is more than 114.0V DC (27 inch) 122.3V DC (32inch) when the set is operating normally with 120.0 ± 2.0 V AC supply.

2. Hold-down operation confirmation

- Turn the POWER switch ON, and receive entirely white signals and adjust ABL current to $1760\pm 50\mu A$ with PICTURE and BRIGHT etc controls.
- Apply DC voltage of over 130.0V DC gradually to the check terminal of TP-85 (D BOARD) via 1T40 from the DC stabilized power source. Confirm that the minimum voltage is less than 137.5V DC (27inch) 143.5V DC (32inch) whereby the raster disappears during operation of hold-down circuit.

NOTE: When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.

- Turn the POWER switch ON, and receive dot signals and adjust ABL current to $160\pm 50\mu A$ with PICTURE and BRIGHT etc controls .

NOTE: When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.

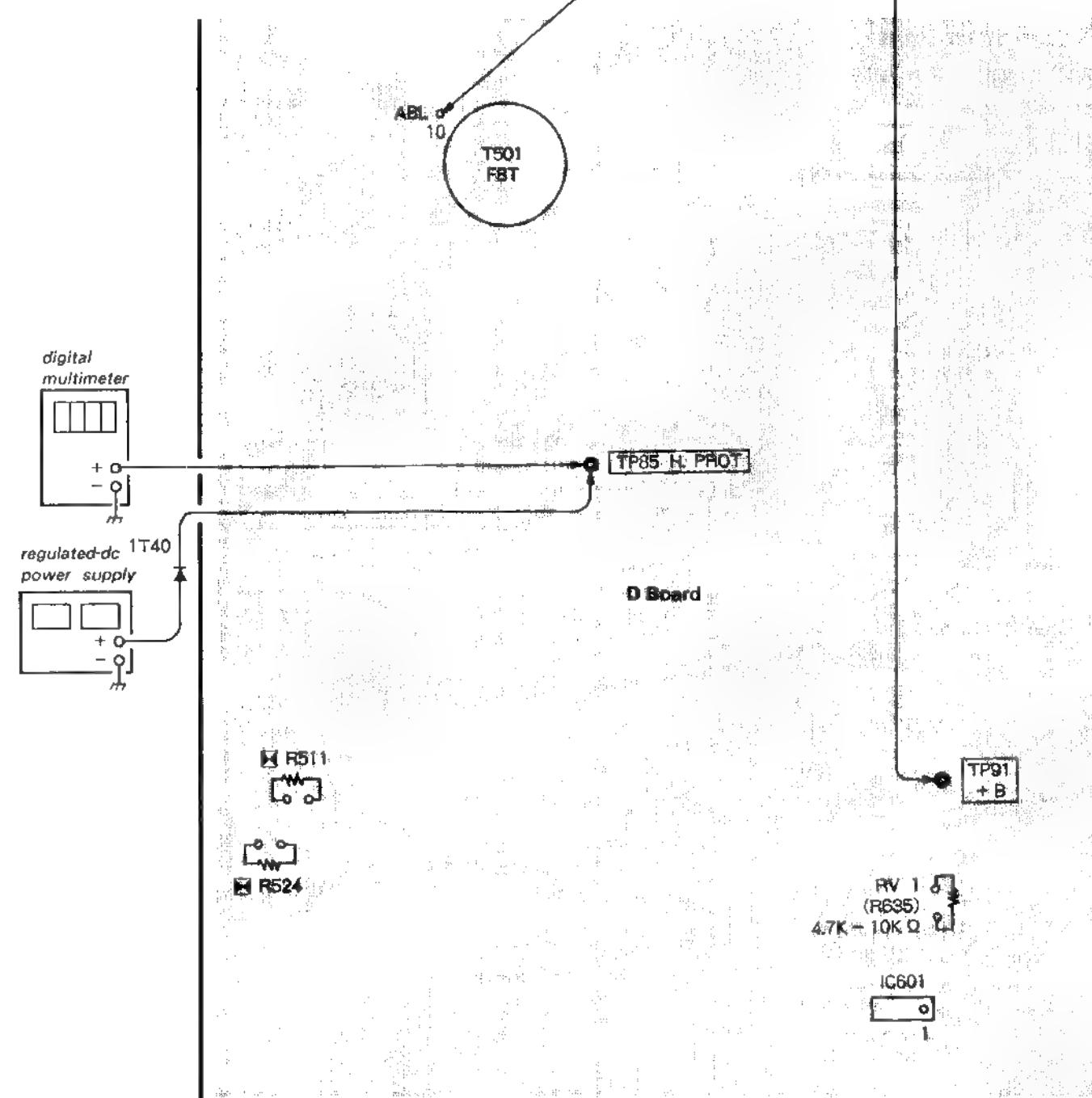
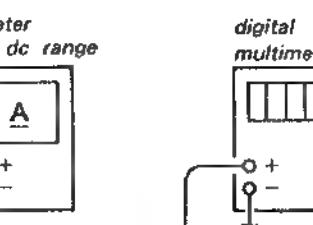
3. Hold-down readjustment

When step 2 is not satisfied, readjustment should be performed by altering the resistance value of R524 (a component marked with ☒).

B+ VOLTAGE CONFIRMATION

The following adjustments should always be performed when replacing IC601 and R635.

- Supply 130 ± 2.0 V AC to with variable autotransformer.
- Receive entirely monoscope signal.
- Set the PICTURE control and the BRIGHT controls in to initial reset.
- Confirm the voltage of TP91 is less than 137.0V DC.
- If step 4) is not satisfied, replace IC601 and R635 repeat above steps.

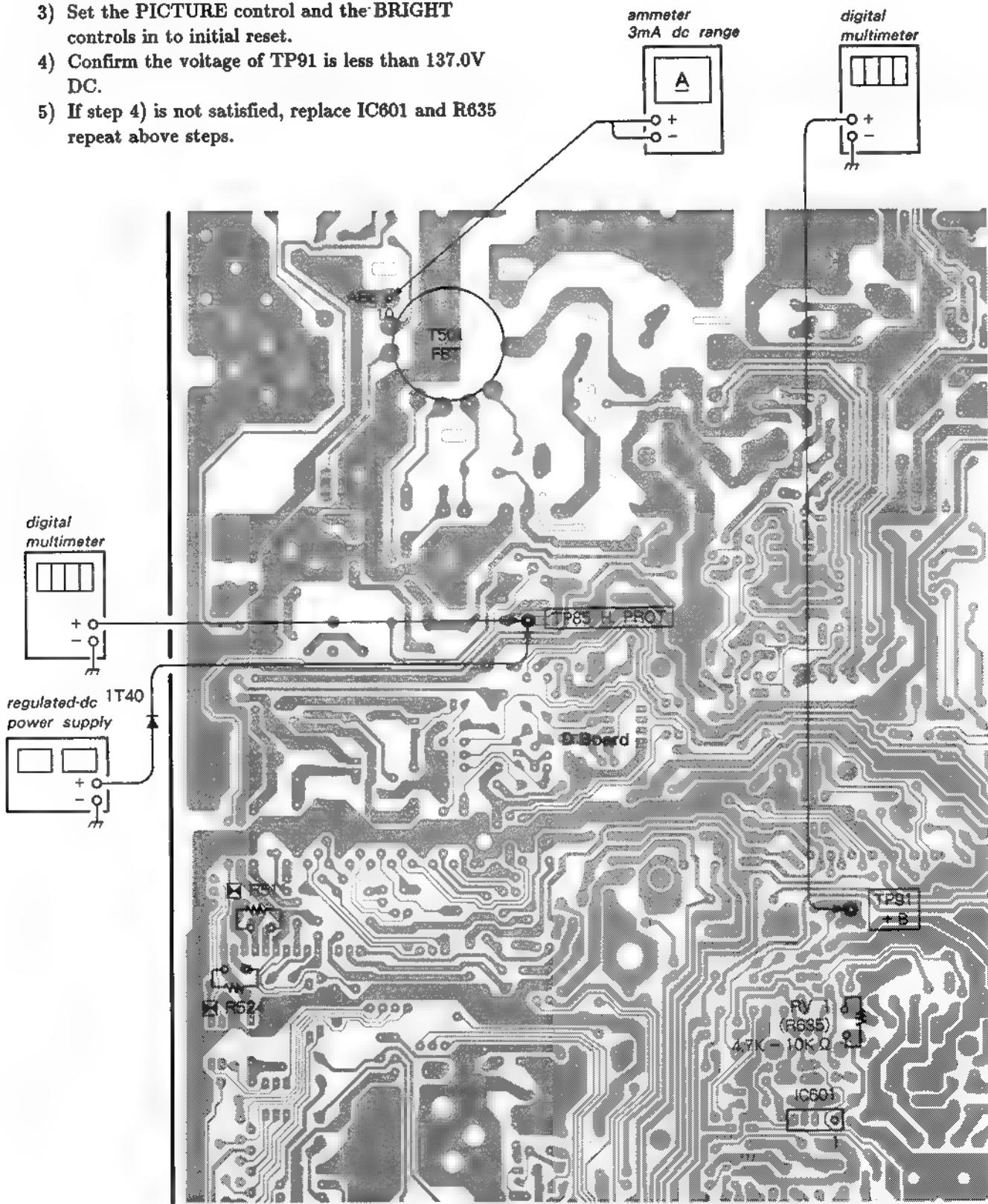


B+ VOLTAGE CONFIRMATION

The following adjustments should always be performed when replacing IC601 and R635.

- 1) Supply $130 \pm 5\text{V}$ AC to with variable autotransformer.
- 2) Receive entirely monoscope signal.
- 3) Set the PICTURE control and the BRIGHT controls in to initial reset.
- 4) Confirm the voltage of TP91 is less than 137.0V DC.
- 5) If step 4) is not satisfied, replace IC601 and R635 repeat above steps.

- * Use a digital multimeter whose input impedance over $100 \text{ M}\Omega$ when confirming the voltage of the protector terminal of TP85.



KV-27V10/27V15
 RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
 RM-Y117 RM-Y117 RM-Y121
 RM-CM101

SECTION 5

CIRCUIT ADJUSTMENTS

5-1. ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER

Use of Remote Commander can be performed circuit adjustments about this model.

NOTE : Test Equipment Required.

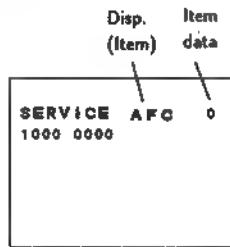
1. Pattern Generator
2. Frequency counter
3. Digital multimeter
4. Audio OSC

1. METHOD OF SETTING THE SERVICE ADJUSTMENT MODE

SERVICE MODE PROCEDURE

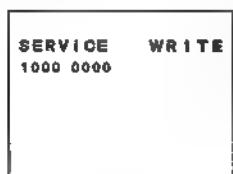
1. Standby mode.(Power off)
2. **DISPLAY** → **5** → **VOL (+)** → **POWER** on the Remote Commander. (Press each button within a second.)

SERVICE ADJUSTMENT MODE IN



3. The CRT displays the item Being adjusted.
4. Press **1** or **4** on the Remote Commander to select the item.
5. Press **3** or **6** on the Remote Commander to change the data.
6. Press **MUTING** then **ENTER** to write into memory.

SERVICE ADJUSTMENT MODE MEMORY



MUTING Green
ENTER Red

7. Press **8** then **ENTER** on the Remote Commander to initialize.



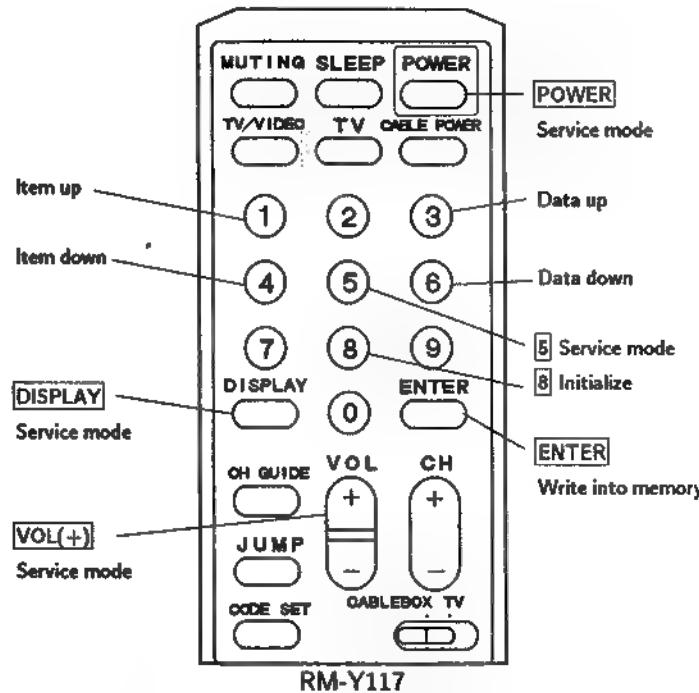
Carry out step 7) when adjusting IDs 0 to 4 and when replacing and adjusting IC102.

Factory original setting

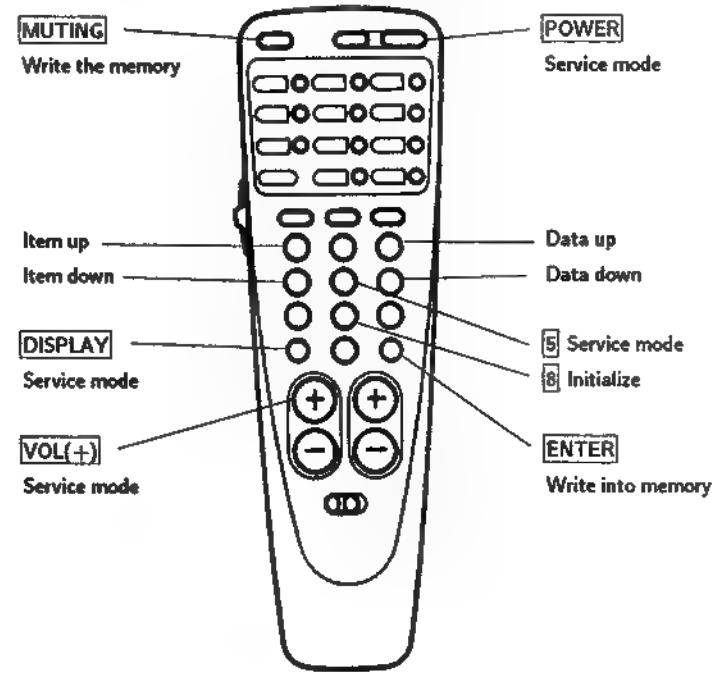
2. MEMORY WRITE CONFIRMATION METHOD

1. After adjustment, pull out the plug from AC outlet, and next place, plug in AC outlet again.
2. Turn the power switch ON and set to Service Mode.
3. Call the adjusted items again, confirm they were adjusted.

3. ADJUST BUTTONS AND INDICATOR



RM-Y117



RM-Y121

8. Turn set off and on to exit.

4. AN ITEM OF ADJUSTMENTS

No.	Disp.	Item	Data range	Ave. data (27 inch)	Ave. data (32 inch)
1	AFC	AFC Loop Gain	0~3	* 0	* 0
2	HFRE	H. Frequency	0~127	70	70
3	VFRE	V. Frequency	0~31	14	14
4	VPOS	V. Center	0~31	17	17
5	VSIZ	V. Size	0~63	28	28
6	VLIN	V. Linearity	0~15	8	8
7	VSCO	V. Correction	0~15	6	6
8	HPOS	H. Center	0~15	6	6
9	HSIZ	H. Size	0~31	31	31
10	PAMP	Pin Amp	0~31	24	24
11	CPIN	Corner Pin	0~7	3	3
12	PPHA	Pin Phase	0~15	6	6
13	VCOM	V. Compensation	0~7	* 2	* 2
14	GAMP	Green Amp	0~31	20	20
15	BAMP	Blue Amp	0~31	17	17
16	GCUT	Green Cut Off	0~15	7	7
17	BCUT	Blue Cut Off	0~15	8	8
18	CROM	Chroma Trap	0~63	* 28	* 28
19	SPIX	Sub Contrast	0~63	20	20
20	SHUE	Sub Hue	0~63	33	33
21	SCOL	Sub Color	0~63	32	32
22	SBRT	Sub Bright	0~63	35	35
23	RGBP	RGB Picture	0~63	* 30	* 10
24	SHAP	Sharpness	0~15	* 10	7
25	VSMO	V Pull in Range	0, 1	* 0	* 0
26	REF	Reference line	0~3	* 2	* 2
27	ROFF	Red Out	0, 1	1	1
28	GOFF	Green Out	0, 1	1	1
29	BOFF	Blue Out	0, 1	1	1
30	ABLM	ABL Mode	0, 1	* 0	* 0
31	NOTC	Notch On/Off	0, 1	* 1	* 1
32	DRGB	OSD intensity	0, 1	* 0	* 0
33	DISP	Display Position	0~63	40	40
34	DPDV	Lumipon (dpdv)	0~3	* 1	* 1
35	MPIC	Lumipon (depth)	0~63	* 48	* 48
36	SVOL	Sub Volume	0~15	* 0	* 0
37	SBAL	Sub Balance	0~15	7	7
38	BASS	Sub Bass	0~15	* 8	* 8
39	TRE	Sub Treble	0~15	* 8	* 8
40	UYBO	Upper Y. Bow	0~63	31	31
41	LYBO	Lower Y. Bow	0~63	25	25
42	HAMP	H. Amp	0~63	33	33
43	HTIL	H. Tilt	0~63	33	33
44	UCBO	Upper C. Bow	0~63	38	38
45	UTIL	Upper Tilt	0~63	40	40
46	LCBO	Lower C. Bow	0~63	41	41
47	LTIL	Lower Tilt	0~63	46	46
48	DCSH	DC. Shift	0~63	37	37
49	PHPO	Pin P H Position	0~127	76	76
50	PHUE	Pin P Hue	0~127	* 0	* 0
51	ID-0	Model ID	0~127	by Model	by Model
52	ID-1	Model ID	0~127	by Model	by Model
53	ID-2	Model ID	0~127	by Model	by Model
54	ID-3	Model ID	0~127	by Model	by Model
55	ID-4	Model ID	0~127	by Model	by Model

Note : No. from 1 to 55 is to show adjustment order.

SERVICE		ID	0	64
1000	0000	1000	0000	0000

Please adjust the function values as shown below when IC 102 on M board was replaced.

KV-27V 10 (US/CND)

No.	Disp.	Disp.	Data
51	ID-0	1 1 1 1 0 0 0	120
52	ID-1	1 1 1 1 1 1 1	127
53	ID-2	1 0 0 1 0 0 0	72
54	ID-3	0 0 0 0 0 0 0	0
55	ID-4	0 0 1 0 0 0 1	17

KV-27V 15 (US/CND)

No.	Disp.	Disp.	Data
51	ID-0	1 1 1 1 0 0 0	120
52	ID-1	1 1 1 1 1 1 1	127
53	ID-2	1 0 0 1 0 0 0	72
54	ID-3	1 0 0 0 0 0 0	64
55	ID-4	0 0 1 0 0 1 1	19

KV-29V 10 C (WP)/29 V 10 M (E)

No.	Disp.	Disp.	Data
51	ID-0	1 1 1 1 0 0 0	120
52	ID-1	1 1 1 1 1 1 1	127
53	ID-2	0 1 0 0 0 0 0	32
54	ID-3	0 0 0 0 0 0 0	0
55	ID-4	0 0 1 0 0 0 1	17

KV-32 V 15 (US/CND)

No.	Disp.	Disp.	Data
51	ID-0	1 1 1 1 0 0 0	120
52	ID-1	1 1 1 1 1 1 1	127
53	ID-2	1 0 0 1 0 0 0	72
54	ID-3	0 1 0 0 1 0 0	36
55	ID-4	0 0 1 0 0 1 1	19

* : Set-up value

5-2. M BOARD ADJUSTMENTS

H.FREQUENCY ADJUSTMENT (HFRE)

1. Input a color-bar signal.
2. Set to Service adjustment Mode.
3. Connect a frequency counter to CN131 Pin⑬ (H. DRIVE) connector and ground.
4. Call the item of AFC, set to 3 level (free run).
5. Select HFRE with **1** and **4**.
6. Adjust with **3** and **6** for the $15734 \pm 60\text{Hz}$.
7. Call the item of AFC again, adjust the level "0".
8. Write into the memory by pressing **MUTING** then **ENTER**.

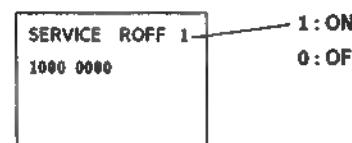
V.FREQUENCY ADJUSTMENT (VFRE)

1. Select video 1 with no connecting the signal.
2. Set to Service adjustment Mode.
3. Connect the frequency counter across connector CN131 Pin⑦ (V. DRIVE) connector and ground.
4. Select VFRE with **1** and **4**.
5. Adjust with **3** and **6** for the $56 \pm 0.5\text{Hz}$.
6. Write the memory by pressing **MUTING** then **ENTER**.

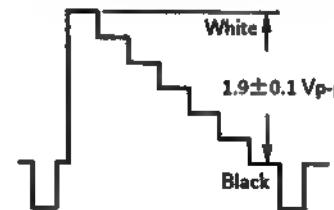
SUB CONTRAST ADJUSTMENT (SPIX)

1. Input a color-bar signal.
2. Set to Service adjustment Mode.
3. Set the conditions as follows.

PICTURE	.....	MAX
COLOR	.....	MIN
BRIGHT	.....	CENTER
R OFF	.....	ON (1)
G OFF	.....	OFF (0)
B OFF	.....	OFF (0)



4. Connect an oscilloscope to CN703 Pin① (R OUT) of C board and ground.
5. Select SPIX with **1** and **4**.
6. Adjust with **3** and **6** for the $1.9 \pm 0.1\text{Vp-p}$.

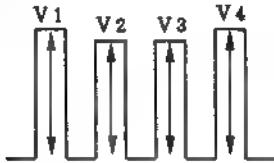


7. Write the memory by pressing **MUTING** then **ENTER**.
8. Return the following back to normal after adjustment.

PICTURE	.....	MAX
BRIGHT	.....	CENTER
COLOR	.....	CENTER
R OFF	.....	ON
G OFF	.....	ON
B OFF	.....	ON

SUB HUE, SUB COLOR ADJUSTMENT (SHUE, SCOL)

1. Input a color-bar signal.
2. Set to service adjustment mode.
3. Connect an oscilloscope to CN703 Pin③ (B OUT) of C board.
4. Select SHUE and SCOL with **[1]** and **[4]**.
5. Adjust with **[3]** and **[6]** for the V1=V4 (SCOR) and V2 =V3 (SHUE).



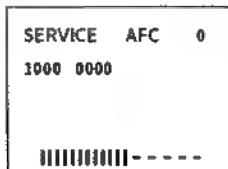
6. Increase the data of SCOL by 3 steps.
7. Write into the memory by pressing **MUTING** then **ENTER**.

SUB BARANCE ADJUSTMENT (SBAL)

1. Input a stereo signal.
2. Set to service adjustment mode.
3. Select SBAL with **[1]** and **[4]**.
4. Adjust with **[3]** and **[6]** for the best sound balance
5. Write into the memory by pressing **MUTING** then **ENTER**.

DISPLAY POSITION ADJUSTMENT (DISP)

1. Input a color-bar signal.
2. Set to service adjustment Mode.
3. Select DISP with **[1]** and **[4]**.
4. Adjust with **[3]** and **[6]** for the bar center.
5. Write the memory by pressing **MUTING** then **ENTER**.

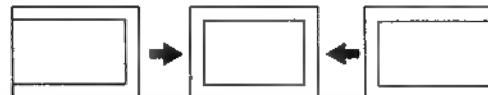


H.CENTER ADJUSTMENT (H POS)

Note: Perform this adjustment after H.FREQUENCY ADJUSTMENT (HFRE).

1. Input a cross-hatch signal.
2. Set the Service adjustment mode.
3. Select HPOS with **[1]** and **[4]**.
4. Adjust with **[3]** and **[6]** to the best horizontal center.
5. Write into the memory by pressing **MUTING** then **ENTER**.

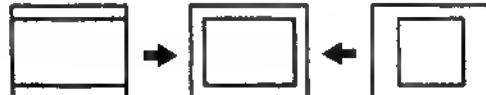
H. CENTER (HPOS)



H.SIZE ADJUSTMENT (HSIZ)

1. Input a cross-hatch signal.
2. Set to service adjustment Mode.
3. Select HSIZ with **[1]** and **[4]**.
4. Adjust with **[3]** and **[6]** for best horizontal size.
5. Write into the memory by pressing **MUTING** then **ENTER**.

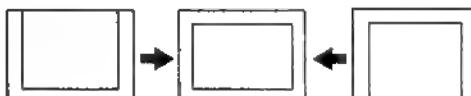
H. SIZE (HSIZ)



V.CENTER ADJUSTMENT (VPOS)

1. Input a cross-hatch signal.
2. Set to service adjustment Mode.
3. Select VPOS with **[1]** and **[4]**.
4. Adjust with **[3]** and **[6]** for the best vertical senter.
5. Write into the memory by pressing **MUTING** then **ENTER**.

V. CENTER (VPOS)

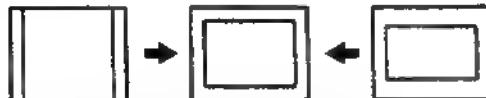


KV-27V10/27V15
 RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
 RM-Y117 RM-Y117 RM-Y121
 RM-CM101

V.SIZE ADJUSTMENT (VSIZ)

1. Input a cross-hatch signal.
2. Set to service adjustment Mode.
3. Select VSIZ with **[1]** and **[4]**.
4. Adjust with **[3]** and **[6]** for the best vertical size.
5. Write into the memory by pressing **MUTING** then **ENTER**.

V. SIZE (VSIZ)



V LINEARITY(VLIN), VS CORRECTION(VSCO), PIN AMP(PAMP), CORNER PIN(CPIN), AND PIN PHASE(PPHA) ADJUSTMENTS

1. Input a cross-hatch signal.
2. Set to Service adjustment Mode.
3. Select VLIN, VSCO, PAMP, CPIN, and PPHA with **[1]** and **[4]**.
4. Adjust with **[3]** and **[6]** for the best picture.
5. Write the memory by pressing **MUTING** then **ENTER**.

V LINEARITY (VLIN)



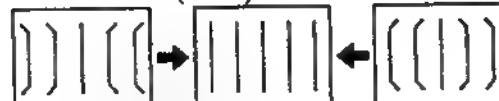
VS CORRECTION (VSCO)



PIN AMP (PAMP)



CORNER PIN (CPIN)



PIN PHASE (PPHA)



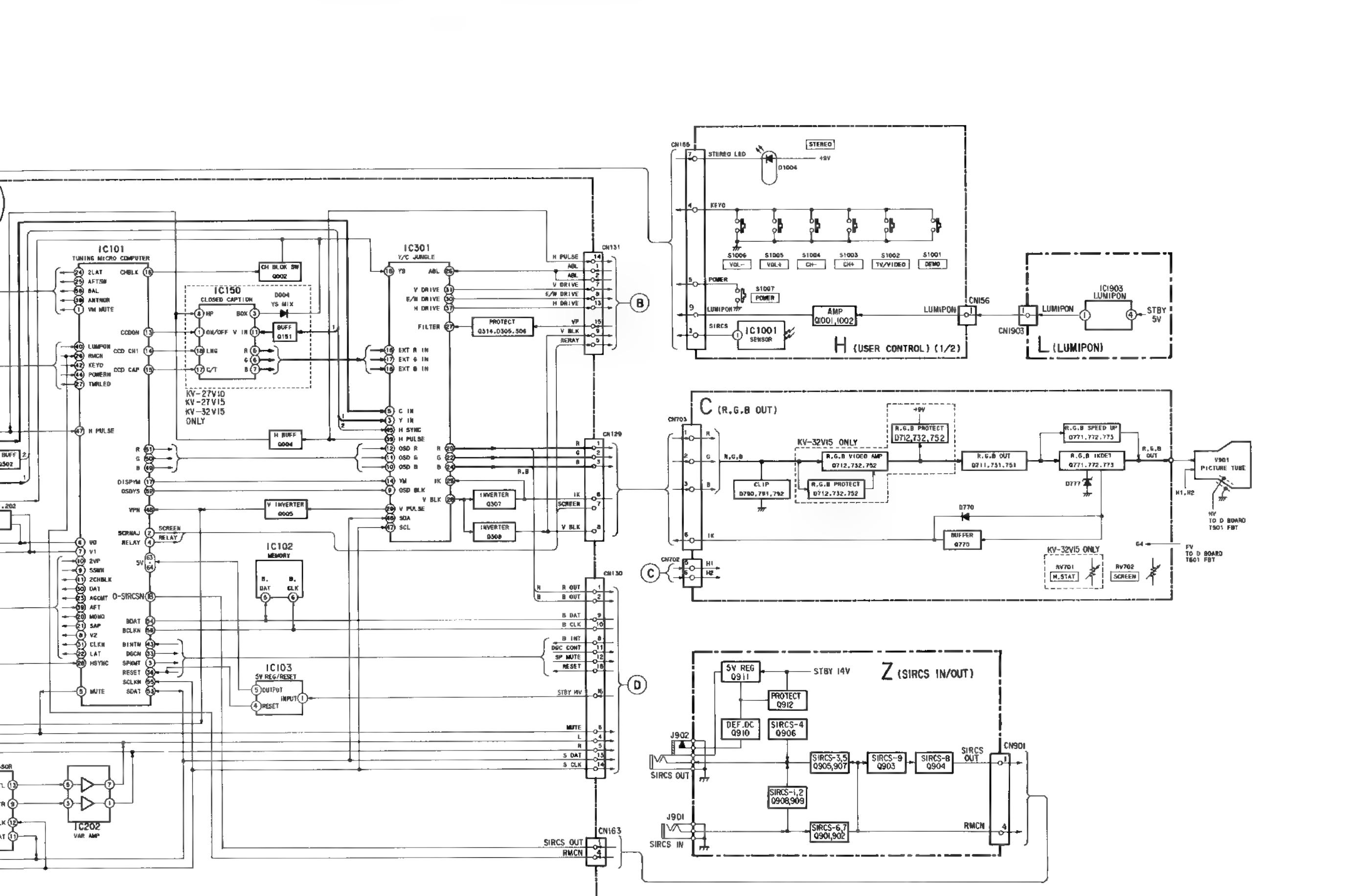
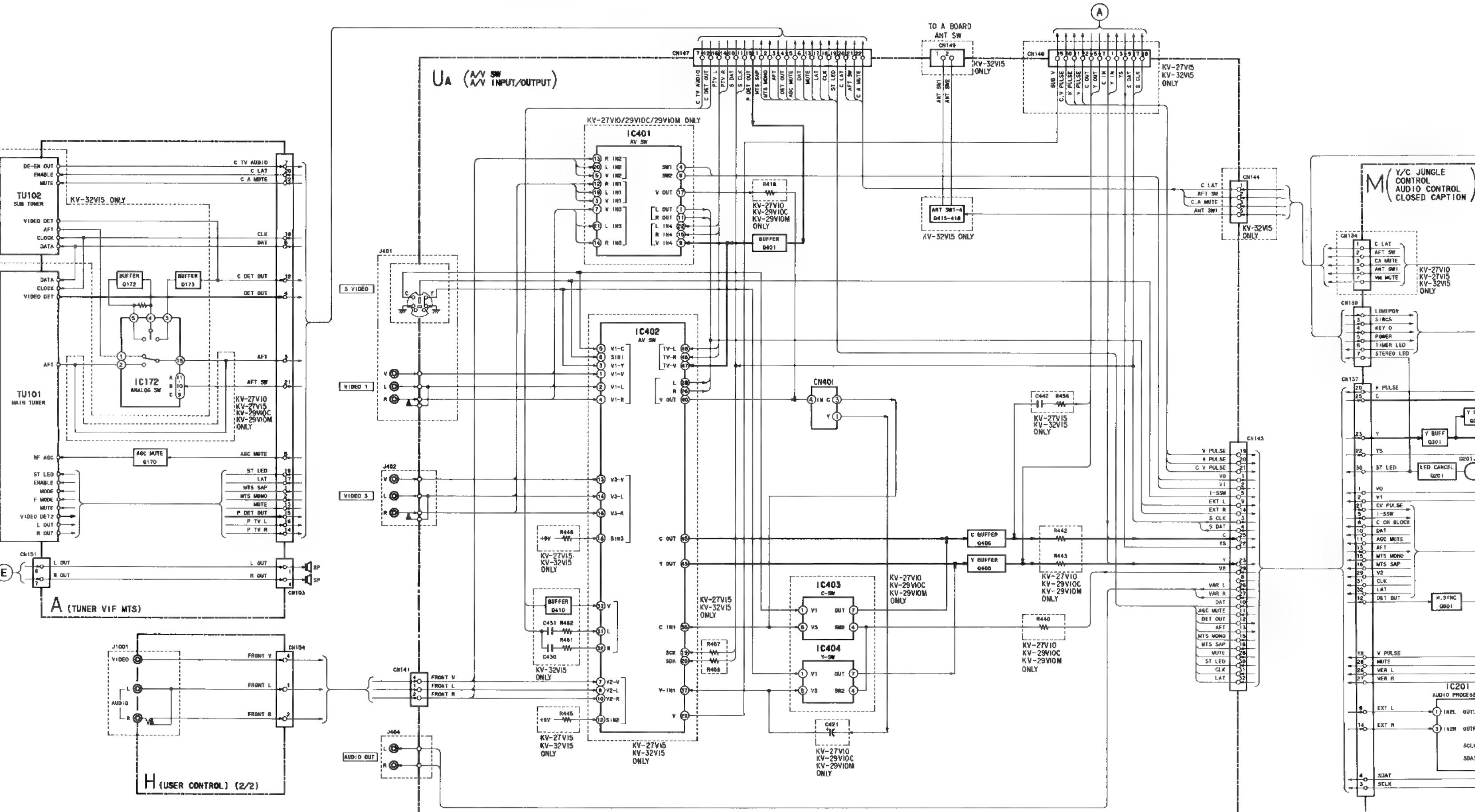
5-3. P BOARD ADJUSTMENTS (KV-27V15/32V15 only)

P IN P H. POSITION (PHPO)

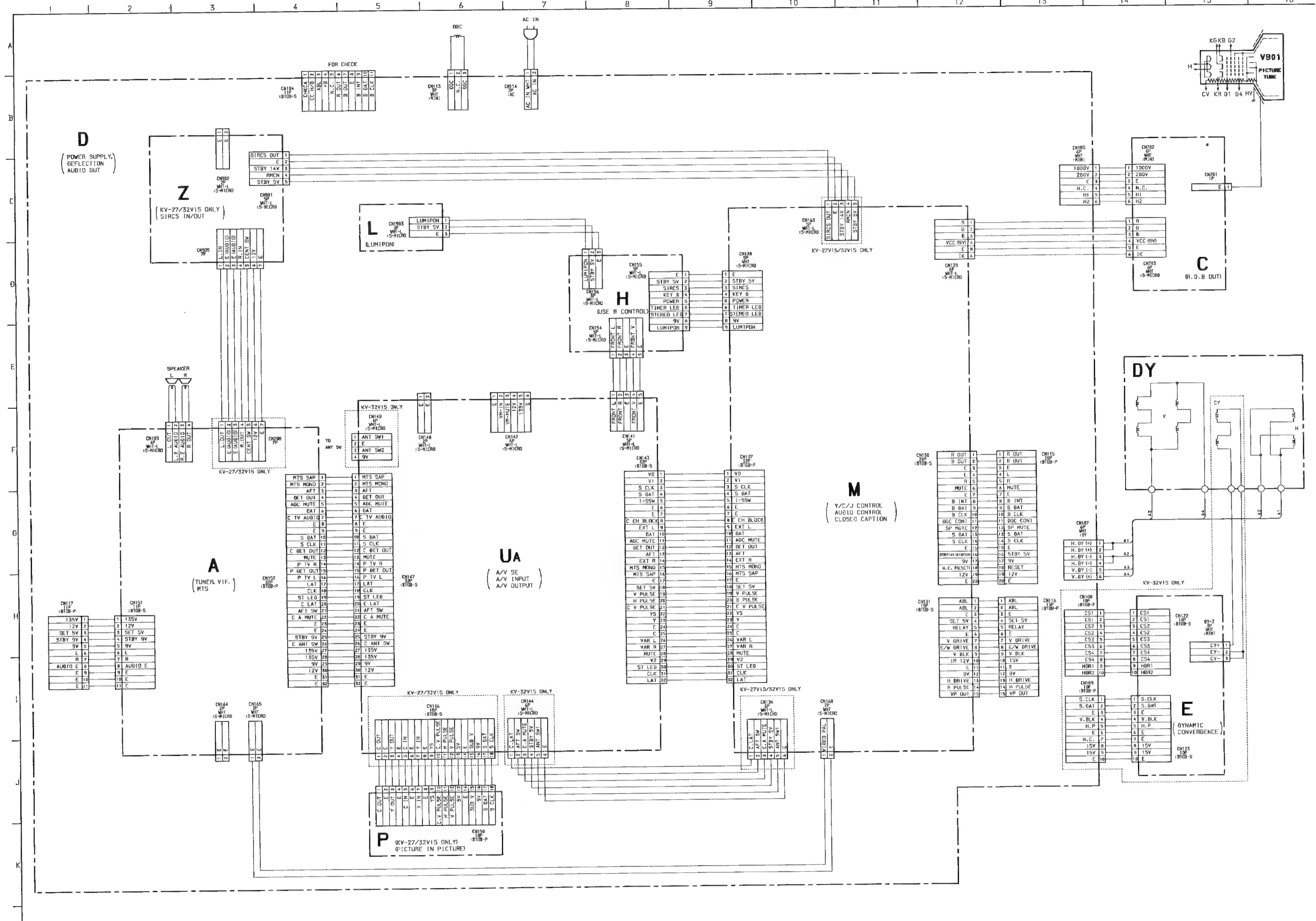
1. Input a color-bar signal
2. Set to Service adjustment Mode.
3. Select PHPO with **[1]** and **[4]**.
4. Adjust with **[3]** and **[6]** for the best balanced cent position at 4 corner P in P display position.
5. Write the memory by pressing **MUTING** then **ENTER**.

**SECTION 6
DIAGRAMS**

6-1. BLOCK DIAGRAMS (1)

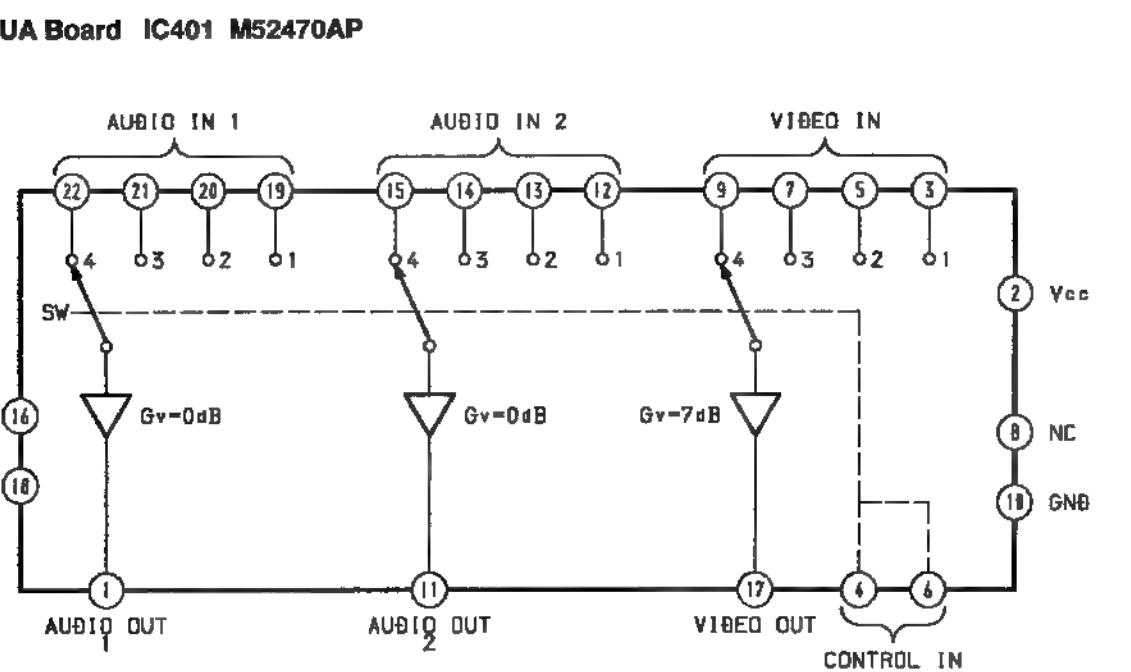
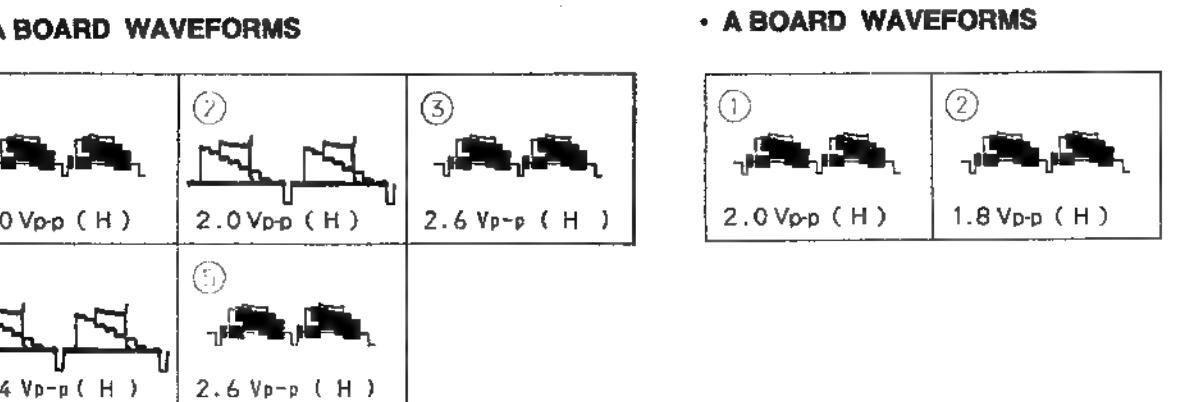
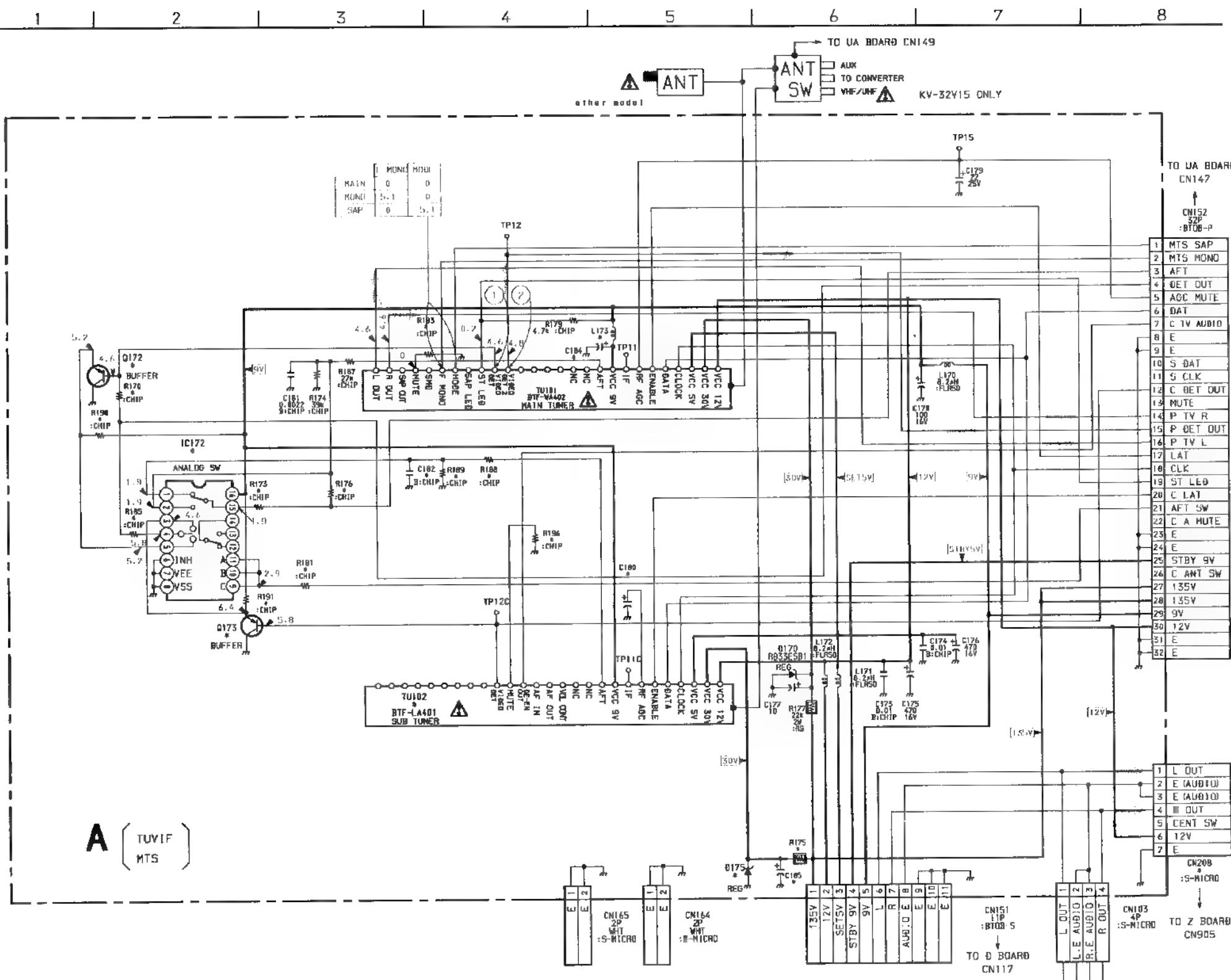


6-3. FRAME SCHEMATIC DIAGRAM



Ref	LOCATION	KV-27V10/27V15 /29V10C/29V10M	KV-32V15
C411	C - 6	100 25V	-
C421	E - 10	0.47	22 25V
C430	F - 8	-	1
C431	F - 8	-	1
C432	F - 7	-	22 25V
C433	E - 8	-	33 25V
C434	E - 8	-	100P
C442	C - 8	-	100P
C462	E - 8	-	100 16V
CN142	C - 14	-	2P
CN144	F - 14	-	6P
CN146	A - 7	-	18P
CN149	K - 11	-	4P
D436	F - 7	-	RD10ESB
D437	F - 7	-	RD10ESB
IC401	C - 7	M52470AP	-
IC402	E - 7	-	CXA1545AS
IC403	F - 10	MM1114XFF	-
IC404	E - 10	MM1118XFF	-
JW403	J - 11	-	10MM
JW454	C - 8	10K	-
JW456	C - 7	10K	-
L401	E - 9	-	18 μH
L403	C - 6	-	33 μH
L404	B - 6	-	33 μH
L405	E - 8	-	JW (5)
L452	I - 10	-	JW (5)
L453	J - 10	-	JW (5)
Q410	F - 6	-	2SD601A
Q415	I - 8	-	2SD601A
Q416	I - 9	-	2SB709A
Q417	I - 10	-	2SB709A
Q418	I - 10	-	2SB709A
R418	D - 8	100	-
R413	D - 10	680	1K
R432	D - 10	680	0
R434	D - 10	680	1K
R435	D - 10	680	0
R440	F - 10	100	-
R442	C - 11	100	-
R443	C - 11	100	-
R445	E - 6	-	10K
R446	F - 6	-	10K
R450	C - 11	100	470
R451	E - 9	-	4.7K
R452	F - 9	-	100
R453	C - 11	1.2K	560
R454	D - 11	100	0
R456	C - 6	-	470
R457	F - 7	-	220
R458	F - 7	-	220
R459	I - 9	-	22K
R460	I - 9	-	330
R461	F - 8	-	4.7K
R462	F - 8	-	4.7K
R463	F - 6	-	680
R464	G - 6	-	680
R476	I - 9	-	22K
R478	C - 6	-	470
R479	I - 9	-	22K
R480	I - 9	-	22K
R481	I - 10	-	22K
R488	I - 10	-	22K
R489	I - 10	-	22K
R1438	C - 6	-	22K

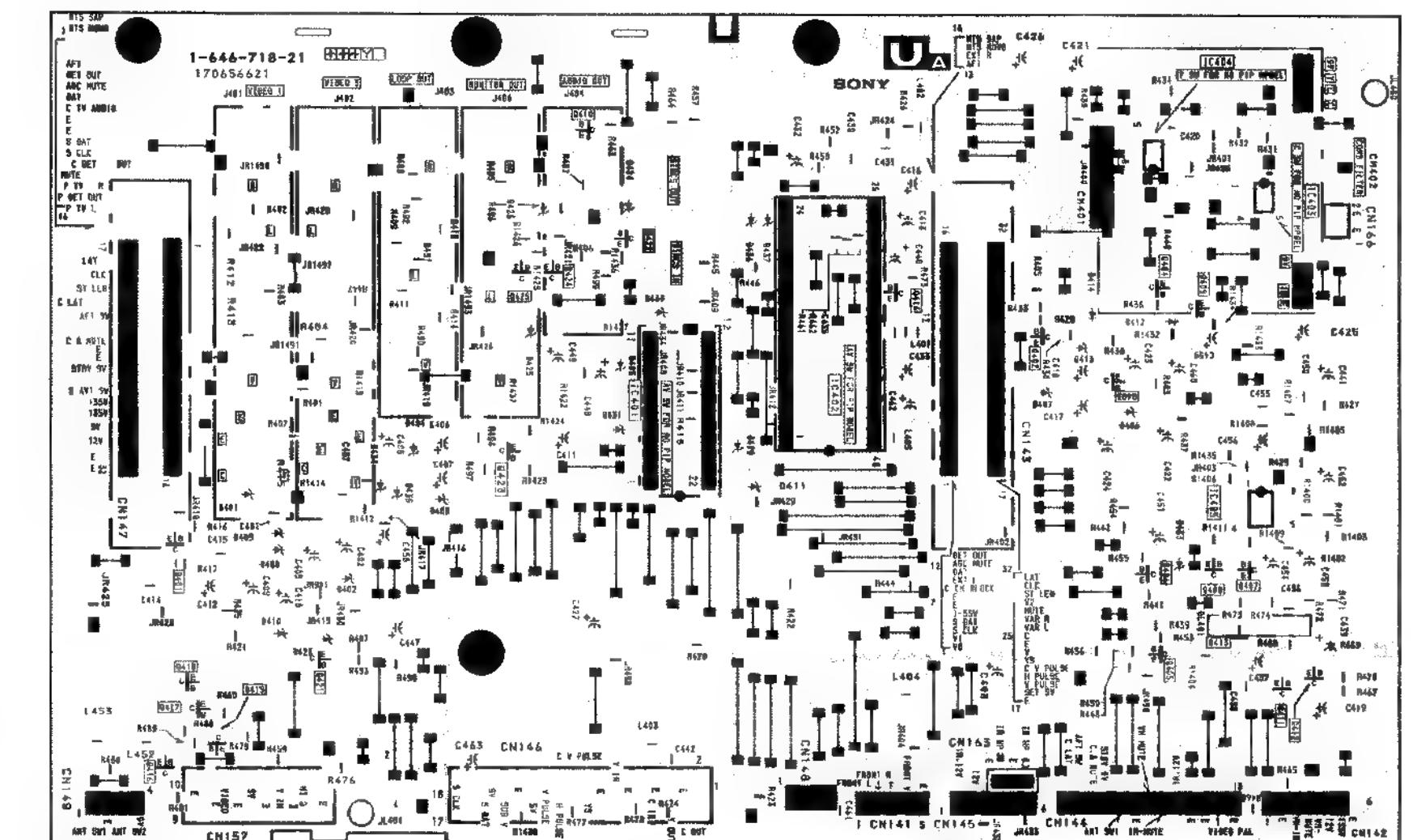
Ref	LOCATION	KV-27V10/27V15 /29V10C/29V10M	KV-32V15
C180	D - 5	-	22MF / 25V
C182	D - 3	-	0.0022MF
C184	D - 5	-	10MF / 50V
C185	F - 6	-	10MF / 50V
CN208	F - 8	7P	-
R175	F - 5	-	RD33ESB1
C172	D - 2	-	BU4053BF
R173	C - 5	-	8.2 μ H
Q172	C - 2	-	2SA1162-G
Q173	D - 2	-	2SA1182-G
R170	C - 2	100 1/10W	-
R173	D - 3	-	0 1/10W
R175	F - 6	-	22K 2W
R176	D - 3	0 1/10W	-
R181	D - 3	-	100 1/10W
R185	D - 2	-	100 1/10W
R188	D - 4	-	39K 1/10W
R189	D - 4	-	27K 1/10W
R190	C - 2	-	4.7K 1/10W
R191	D - 3	-	4.7K 1/10W
R193	C - 3	-	330 1/10W
R196	D - 4	-	330 1/10W
U102	E - 4	-	BTF-LA401



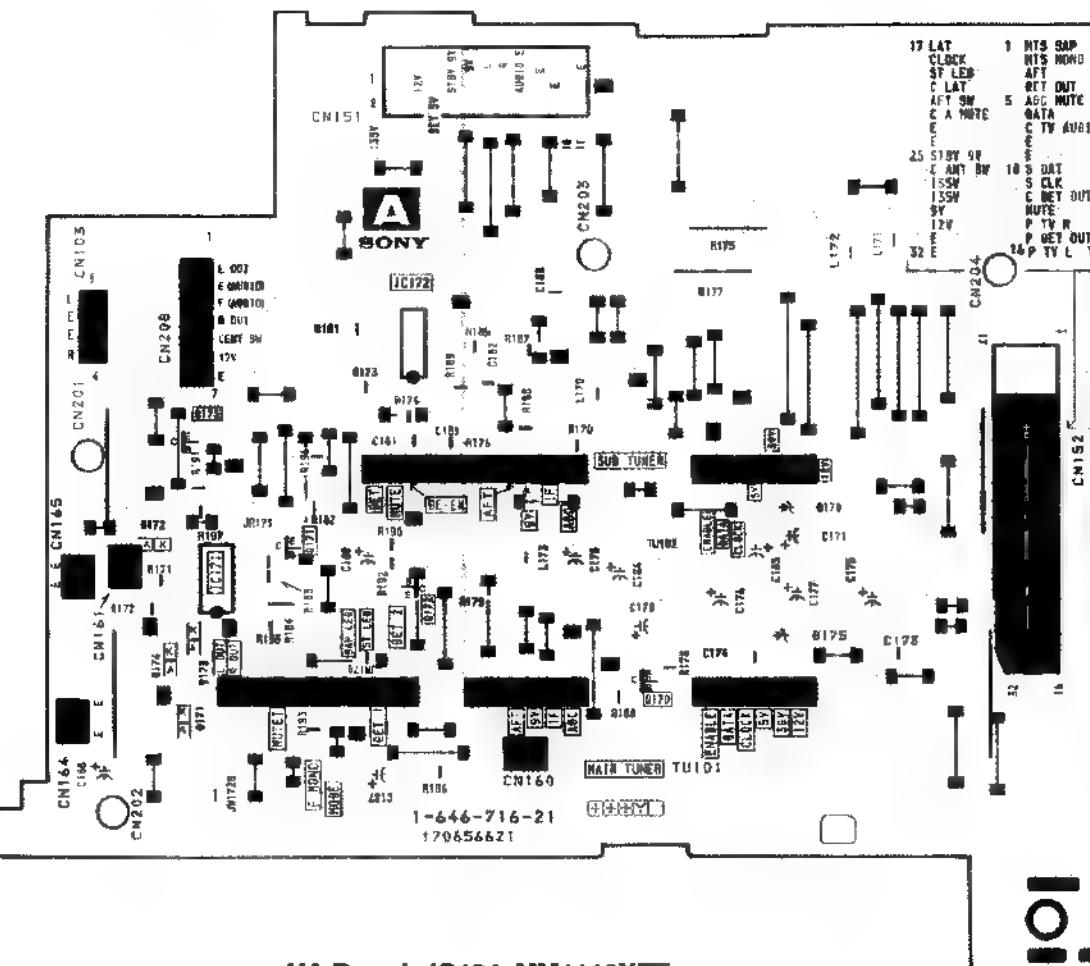
- : NOT MOUNT

UA [A/V SW,
A/V INPUT,
A/V OUTPUT] **A** [TUNER, VIF,
MTS]

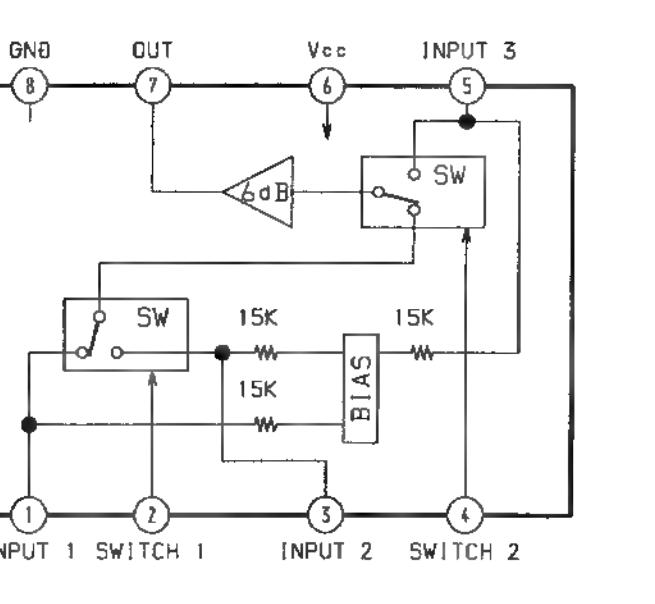
- UA BOARD - **(Conductor Side)**



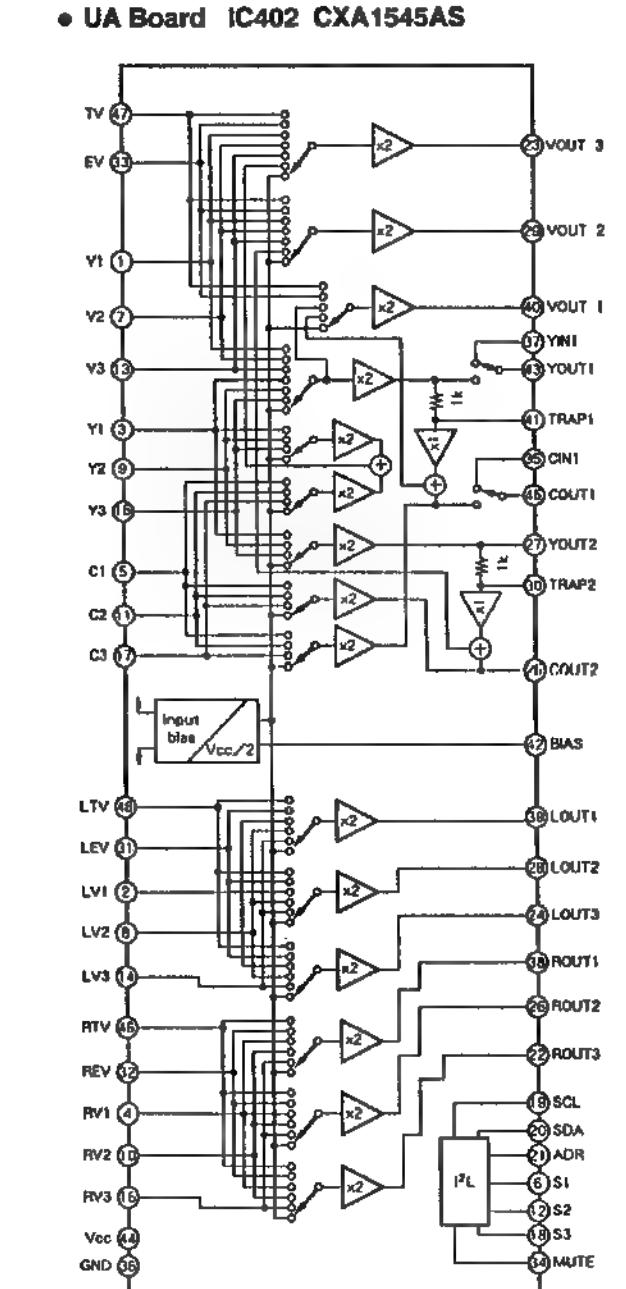
- A BOARD - (Conductor Side)



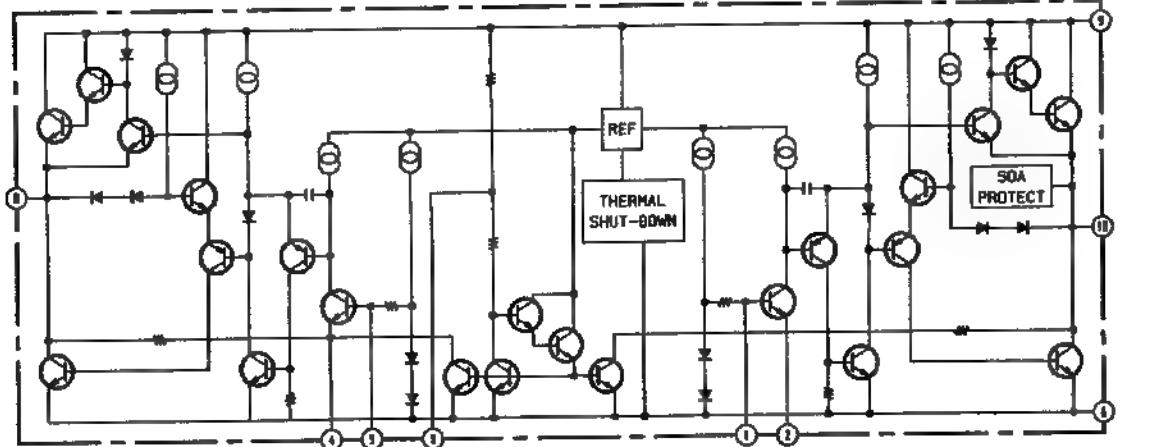
• UA Board IC404 MM1118XFF



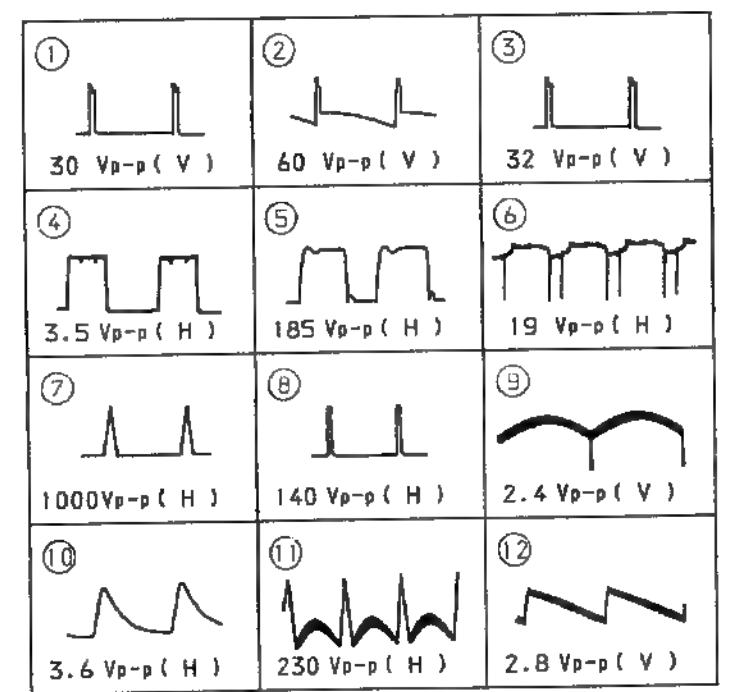
• UA Board IC403 MM1114XFF



• D Board IC2200 TDA2009A



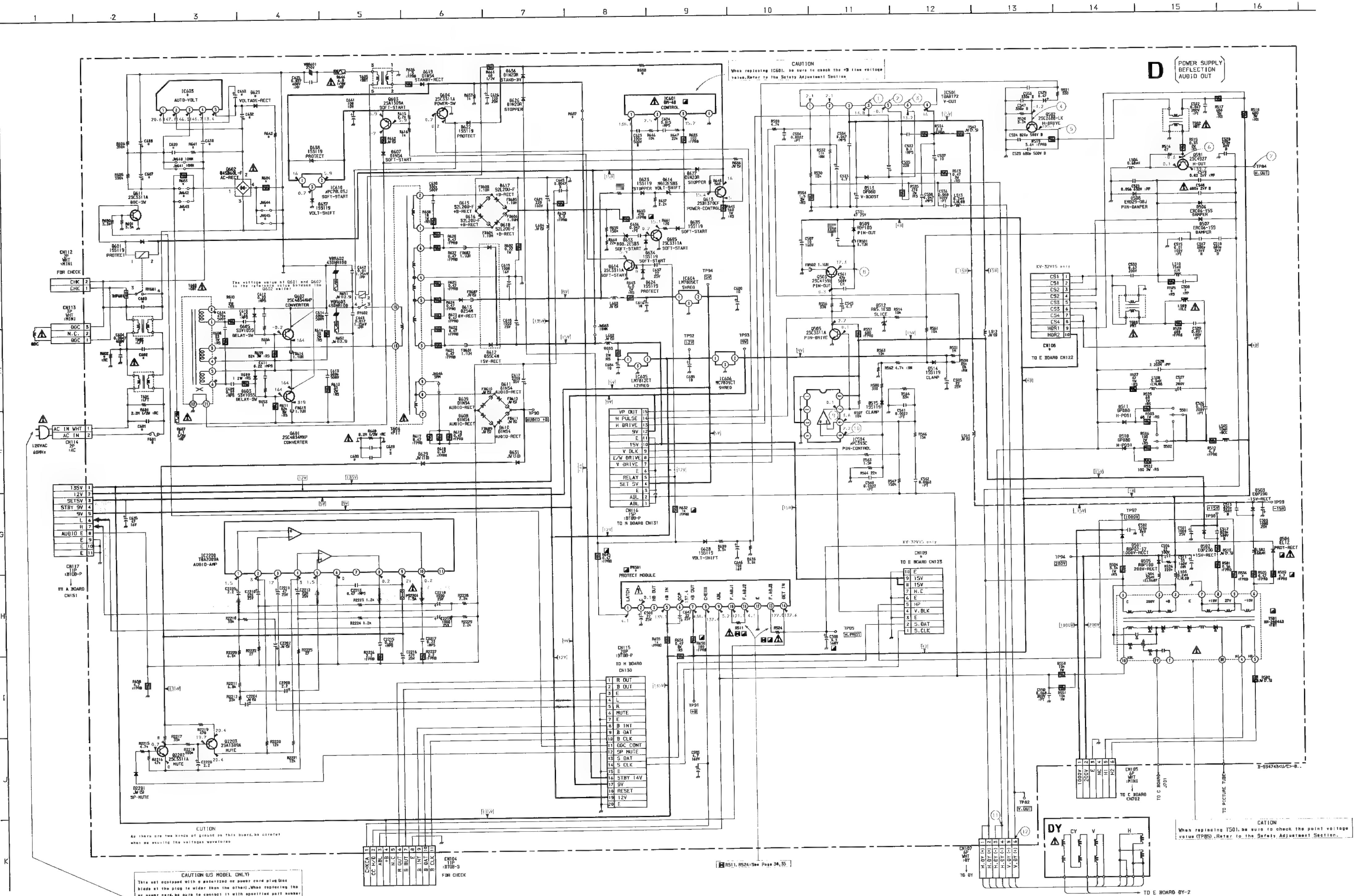
• D BOARD WAVEFORMS



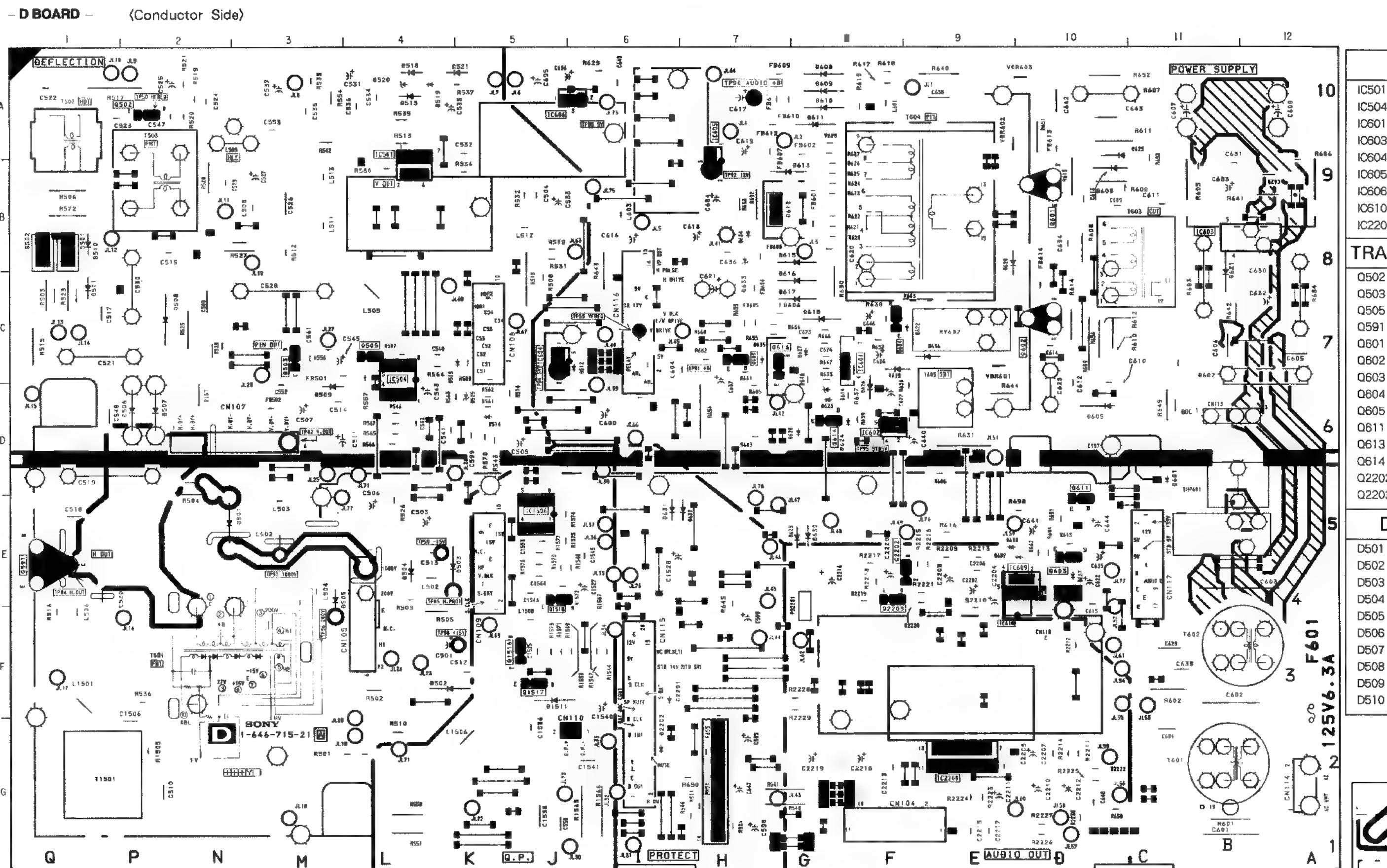
— D BOARD —

Ref	LOCATION	KV-27V10 / 29V10M	KV-27V15	KV-29V10C	KV-32V15
C508	D - 15	0.0022 / 630V	0.0022 / 630V	0.0022 / 630V	-
C601	E - 2	0.47 / 125V	0.47 / 125V	0.47 / 125V	0.47 / 125V
C602	E - 2	0.47 / 125V	0.47 / 125V	-	0.47 / 125V
C603	D - 2	0.47 / 125V	0.47 / 125V	-	0.47 / 125V
C607	C - 2	470 / 200V	470 / 200V	470 / 200V	470 / 200V
C608	B - 2	470 / 200V	470 / 200V	470 / 200V	470 / 200V
C628	F - 5	-	-	470P / 400V	-
C629	B - 2	-	-	0.047 / 200V	-
C630	B - 3	-	-	0.1	-
C632	B - 3	-	-	2.2	-
C633	B - 3	-	-	100	-
C639	F - 5	470P / 400V	470P / 400V	-	470P / 400V
CN108	D - 13	-	-	-	10P
CN109	H - 12	-	-	-	10P
D621	B - 4	-	-	RGP02-17	-
F601	F - 2	6.3A/125V	6.3A/125V	6.3A/250V	6.3A/125V
IC803	B - 3	-	-	STR81159A	-
JW640	B - 3	10MM	10MM	-	10MM
JW641	B - 3	10MM	10MM	-	10MM
JW642	C - 3	10MM	10MM	-	10MM
JW643	C - 3	10MM	10MM	-	10MM
JW644	C - 4	10MM	10MM	-	10MM
JW645	C - 4	10MM	10MM	-	10MM
JW681	-	-	-	10MM	-
JW682	-	-	-	10MM	-
PM501	H - 9	PM-38	PM-38	PM-38	PM-38
R525	D - 15	47 / 2W	47 / 2W	47 / 2W	-
R536	H - 15	-	-	-	4.7
R602	E - 2	2.2M 1/2W	2.2M 1/2W	8.2M 1W	22M 1/2W
R641	B - 3	-	-	4.7 14W	-
R642	B - 4	-	-	2.2 1/4W	-
R663	C - 3	-	-	1 10W	-
R664	C - 4	-	-	1 10W	-
R687	B - 7	6.8 / 1W	6.8 / 1W	JW(12.5)	6.8 / 1W

- : NOT MOUNT



D POWER SUPPLY,
DEFLECTION,
AUDIO OUT

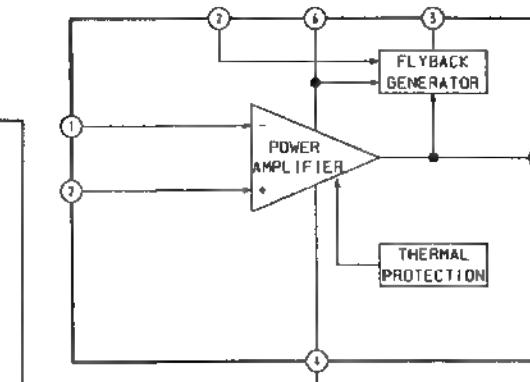


KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101

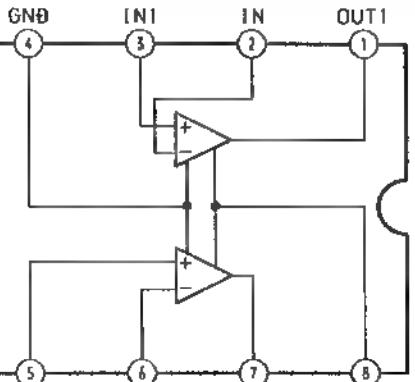
KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101

KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101

• D Board IC501 TDA8172



• D Board IC504 μPC393C



IC	
IC501	A - 4
IC504	C - 4
IC601	C - 8
IC603	B - 11
IC604	C - 5
IC605	A - 7
IC606	A - 5
IC610	F - 10
IC2200	G - 9

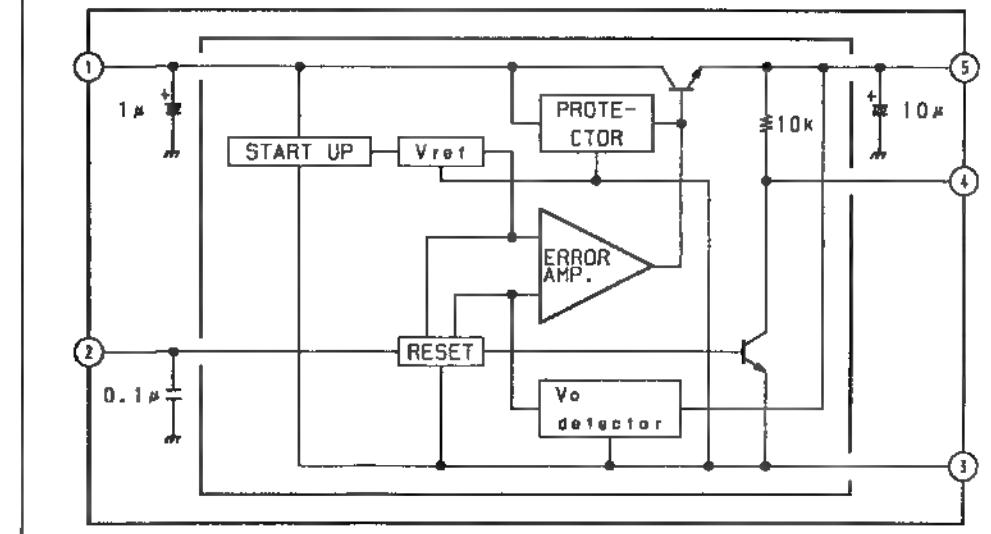
TRANSISTOR	
Q502	A - 2
Q503	C - 3
Q505	C - 4
Q591	E - 1
Q601	B - 10
Q602	C - 10
Q603	E - 10
Q604	C - 8
Q605	C - 7
Q611	E - 10
Q613	C - 7
Q614	D - 8
Q2202	E - 8
Q2203	E - 8

DIODE	
D501	E - 3
D502	F - 4
D503	E - 4
D504	E - 4
D505	E - 3
D506	D - 2
D507	D - 2
D508	C - 2
D509	D - 3
D510	B - 1

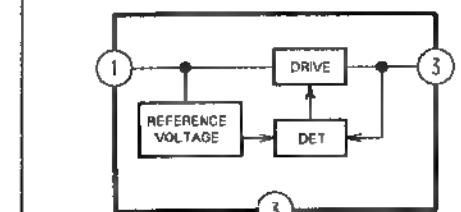
NOTE:

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

• D Board IC602 L78LR05D

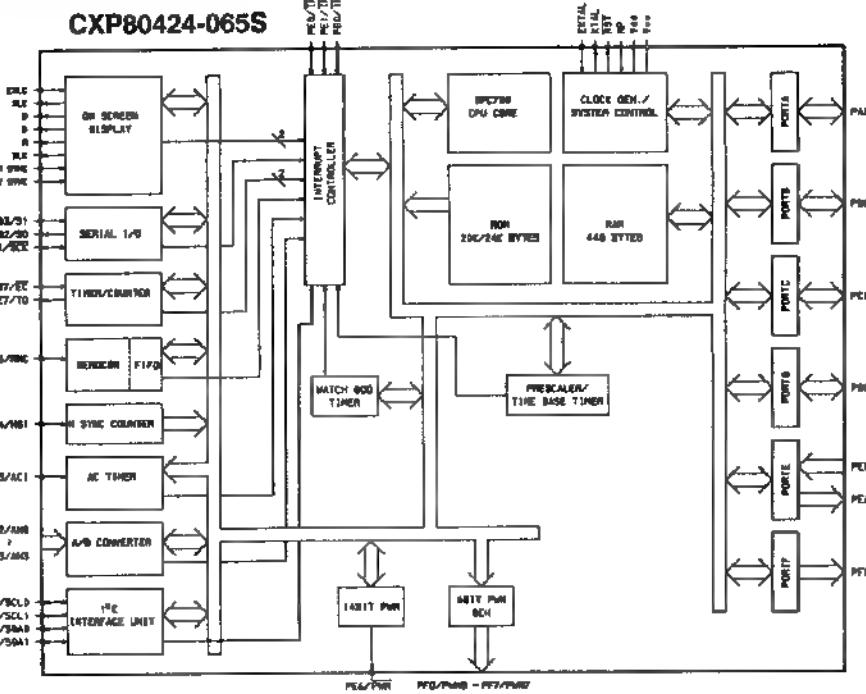


• D Board IC610 μPC78L05J

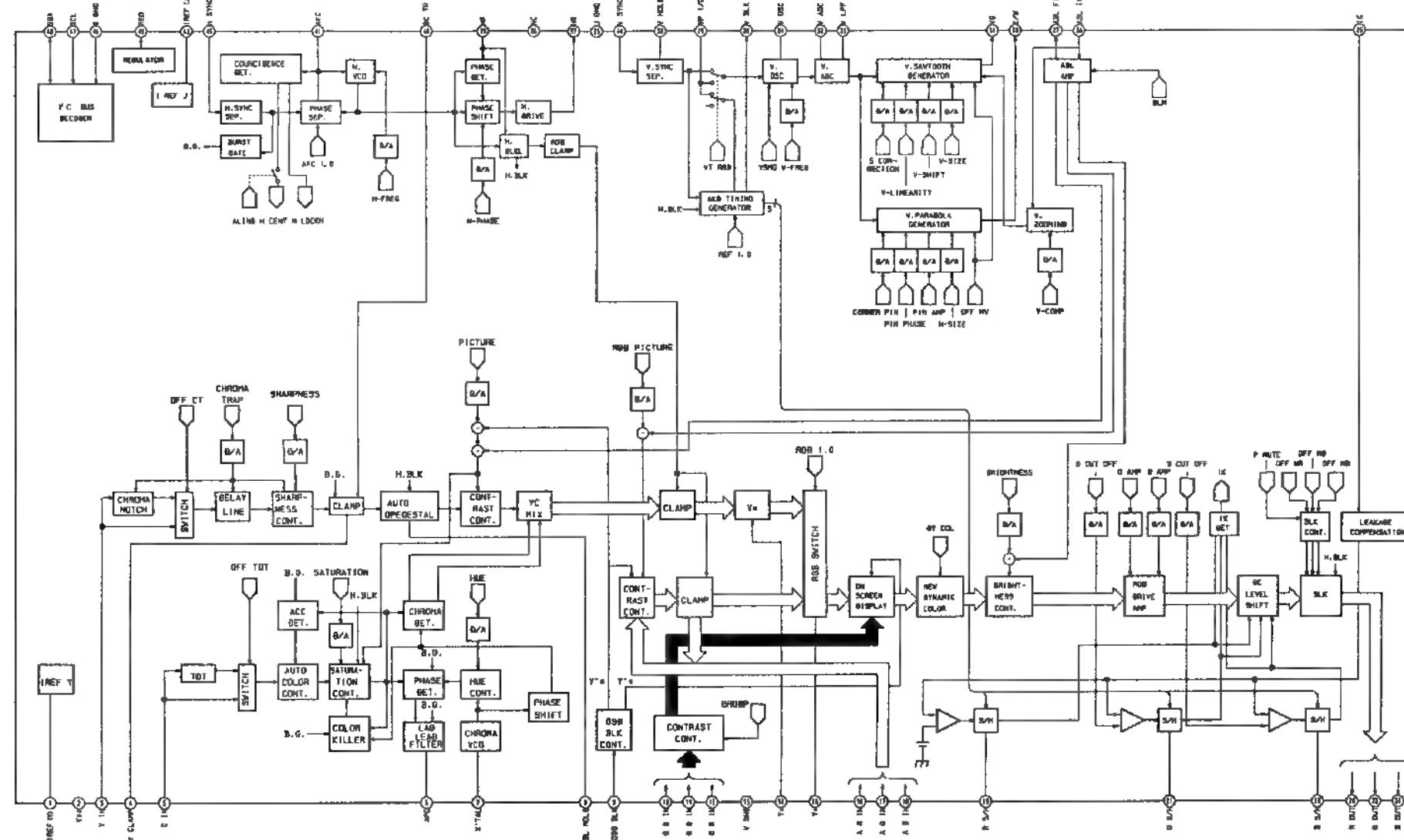


KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101

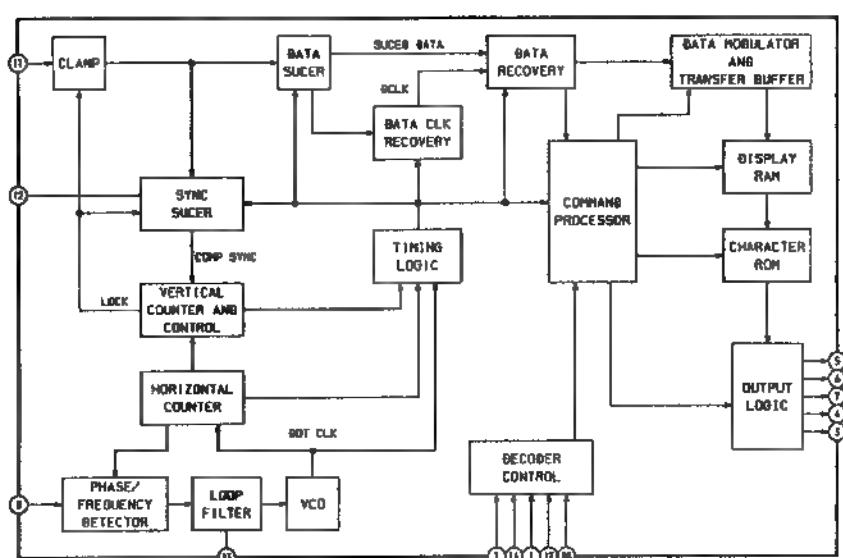
• M Board IC101



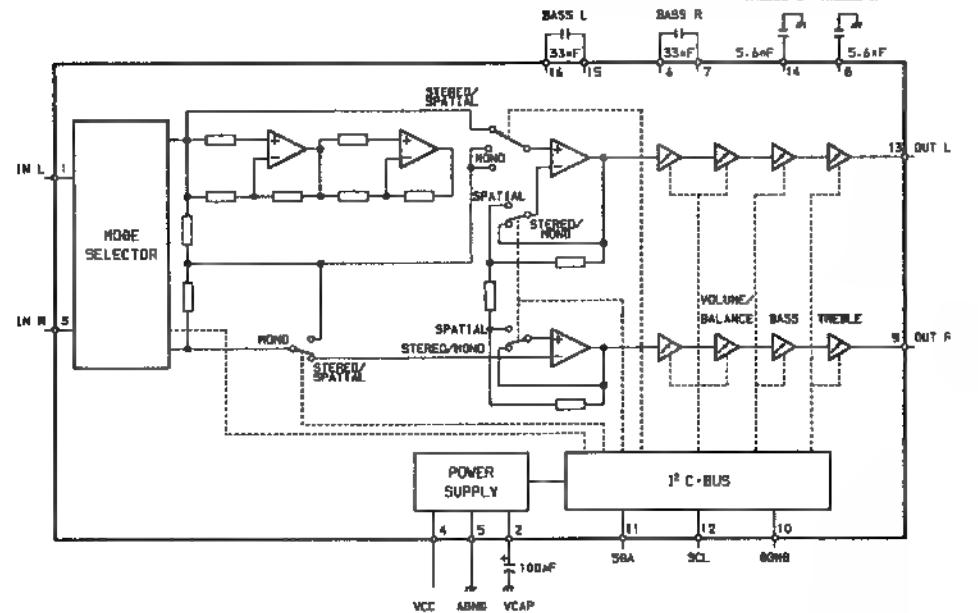
• M Board IC301 CXA1468AS



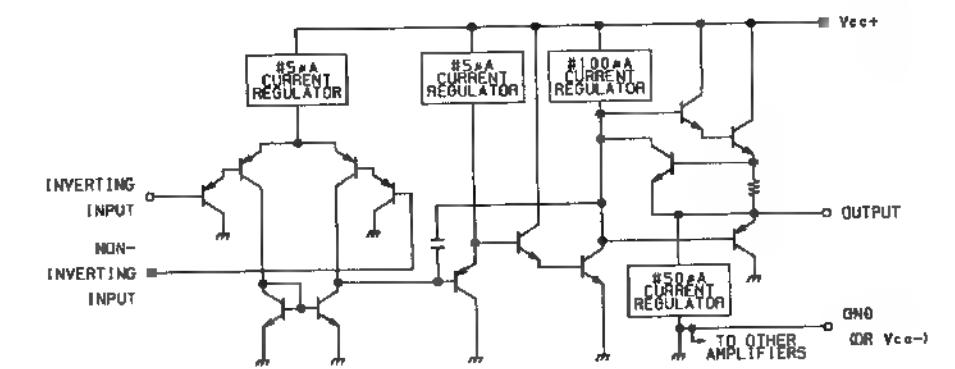
• M Board IC150 MC144143



• M Board IC201 TDA8424



• M Board IC202 LM358PS-T1



IC	DIODE
IC101	C - 6, H - 6
IC102	B - 6, H - 6
IC103	D - 4, G - 4
IC150	B - 4, H - 4
IC201	B - 2, H - 2
IC202	D - 1
IC301	B - 3, G - 3

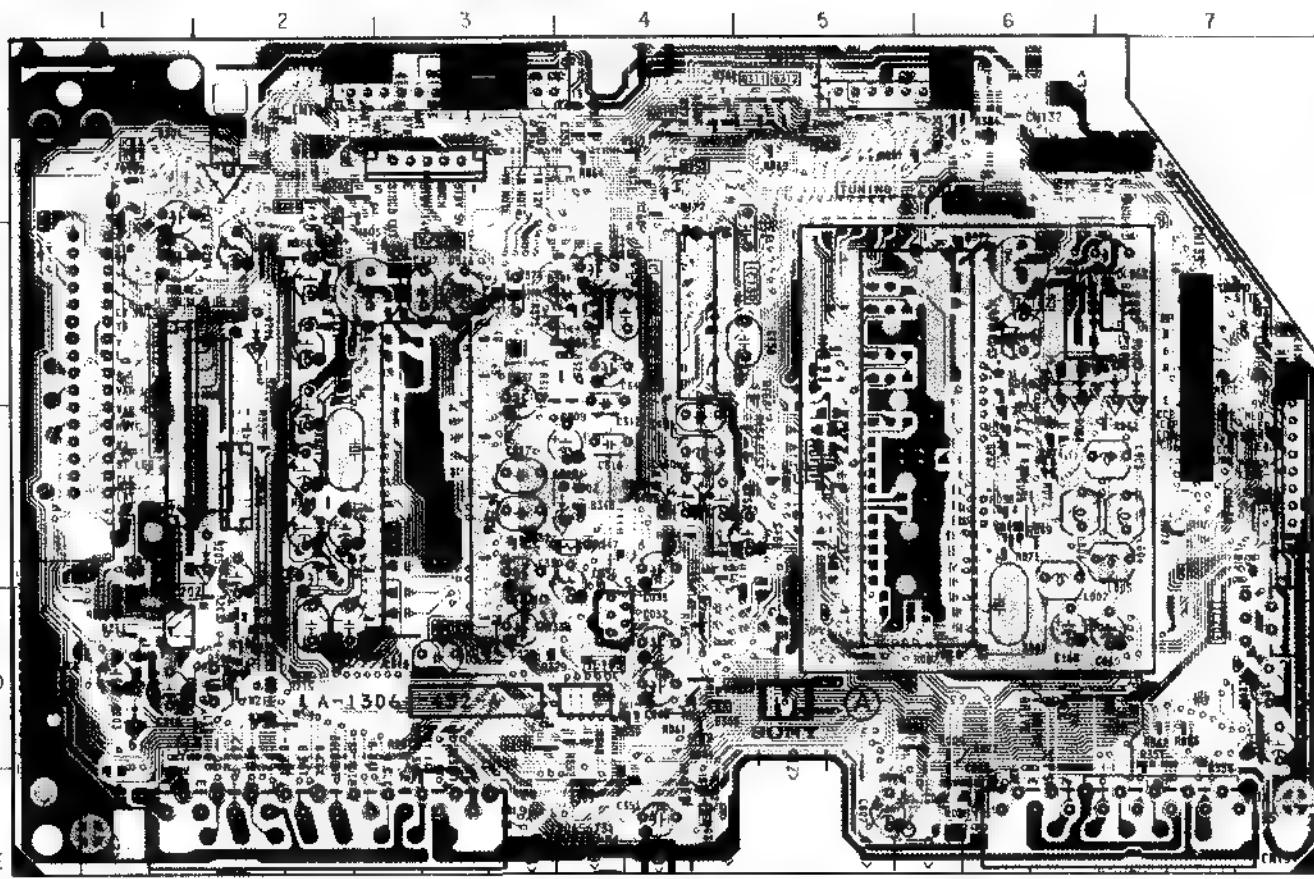
TRANSISTOR
Q001
Q004
Q005
Q151
Q201
Q301
Q302
Q308

KV-27V10/27V15

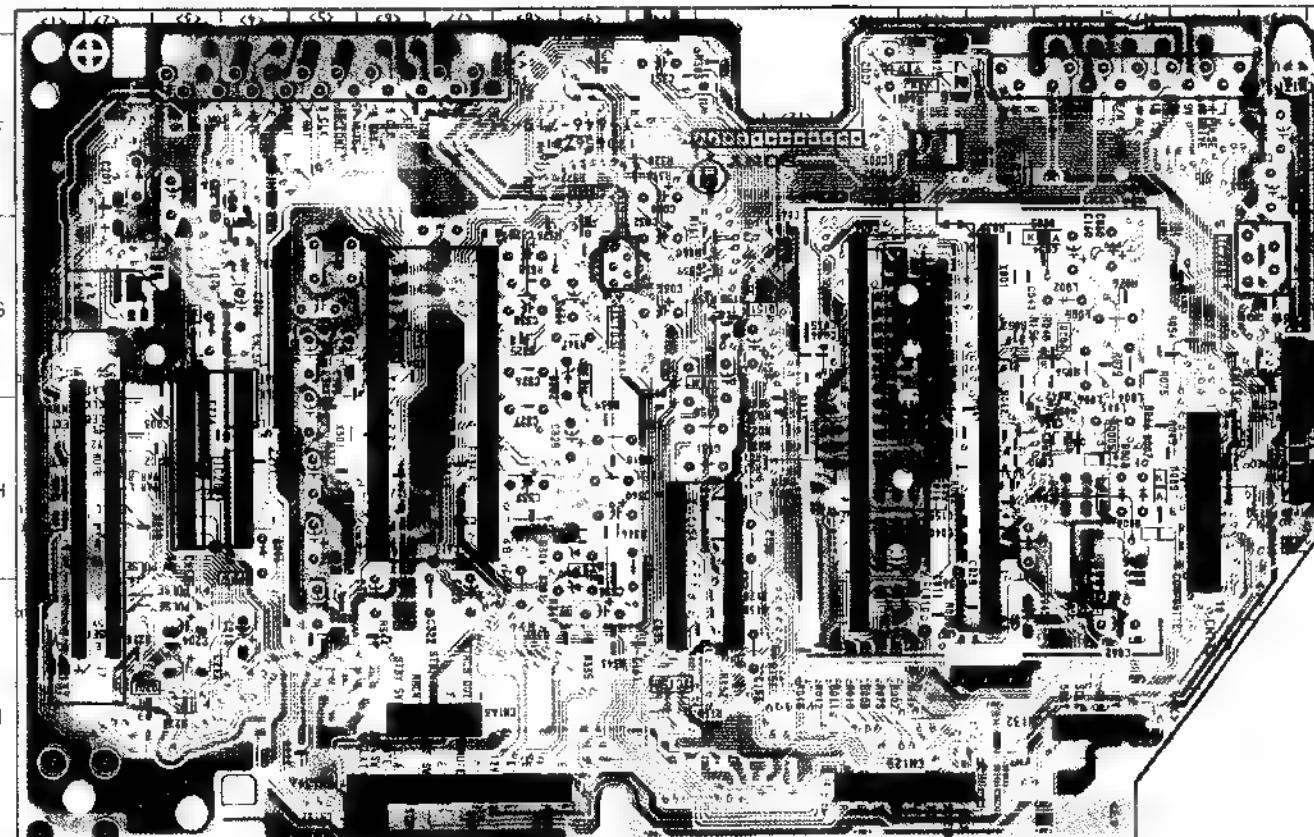
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101

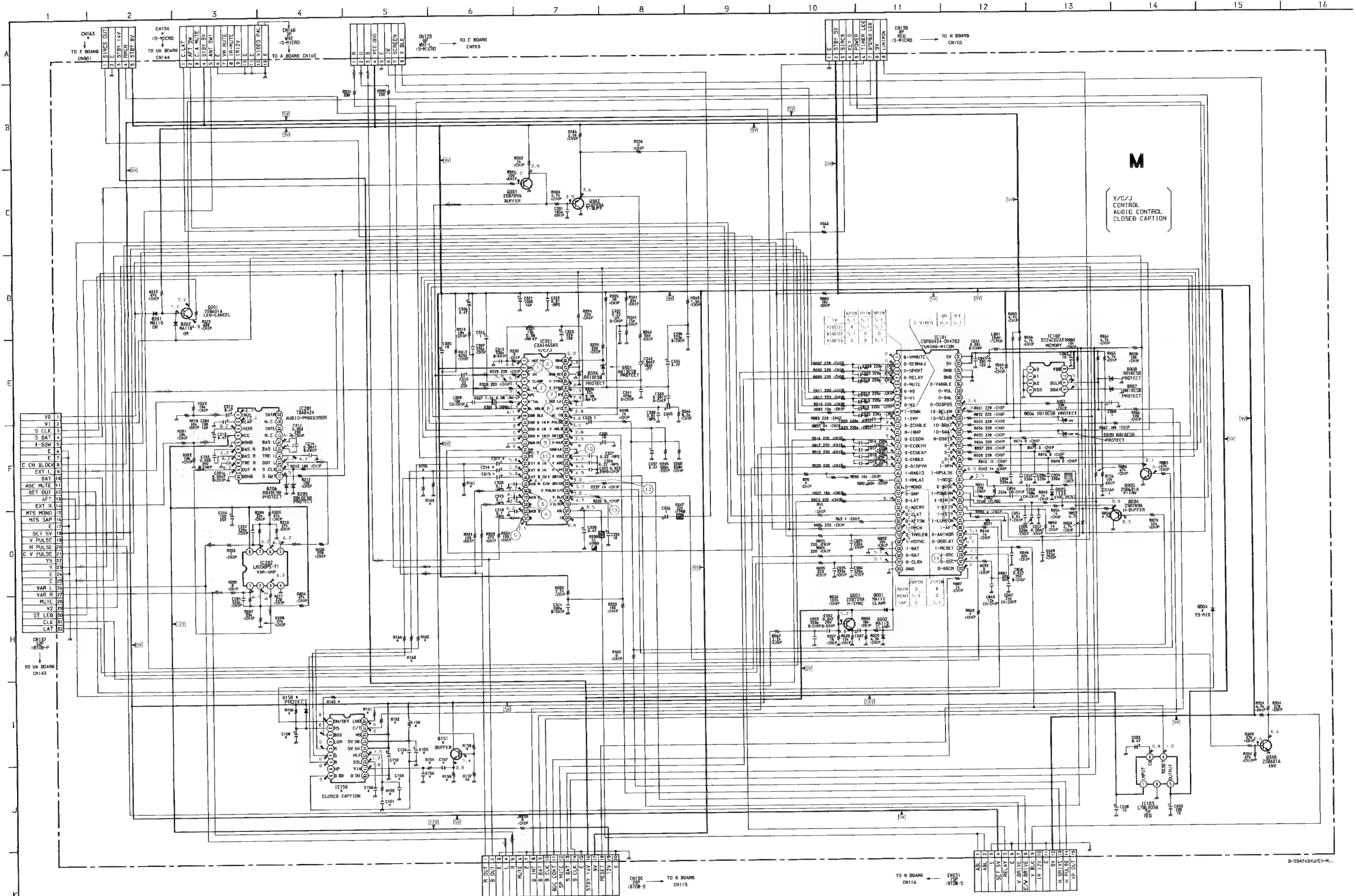
M
Y/C/J,
CONTROL AUDIO,
CONTROL CLOSED CAPTION

- M BOARD -
(Component Side)



(Conductor Side)



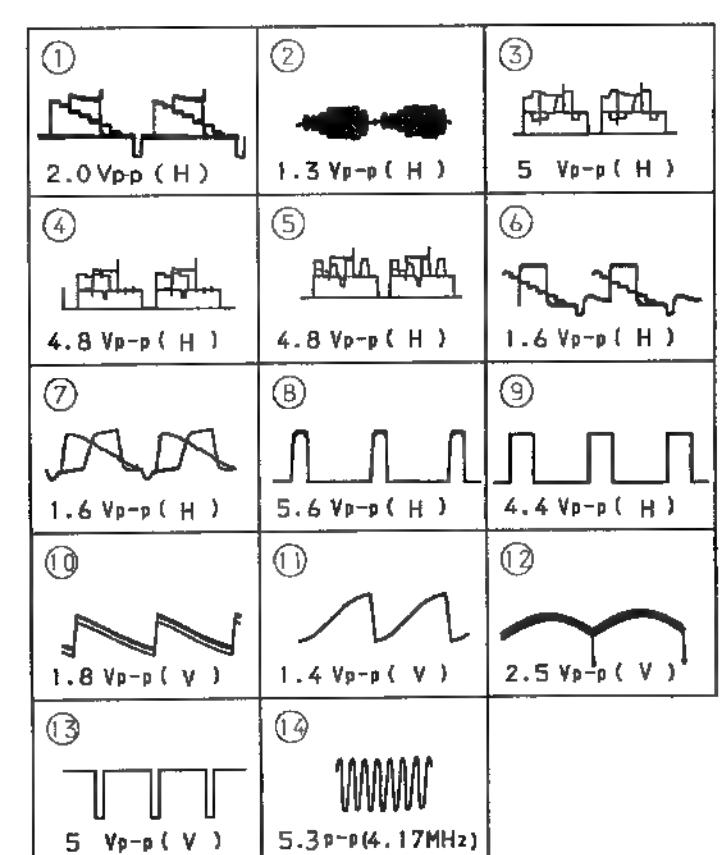


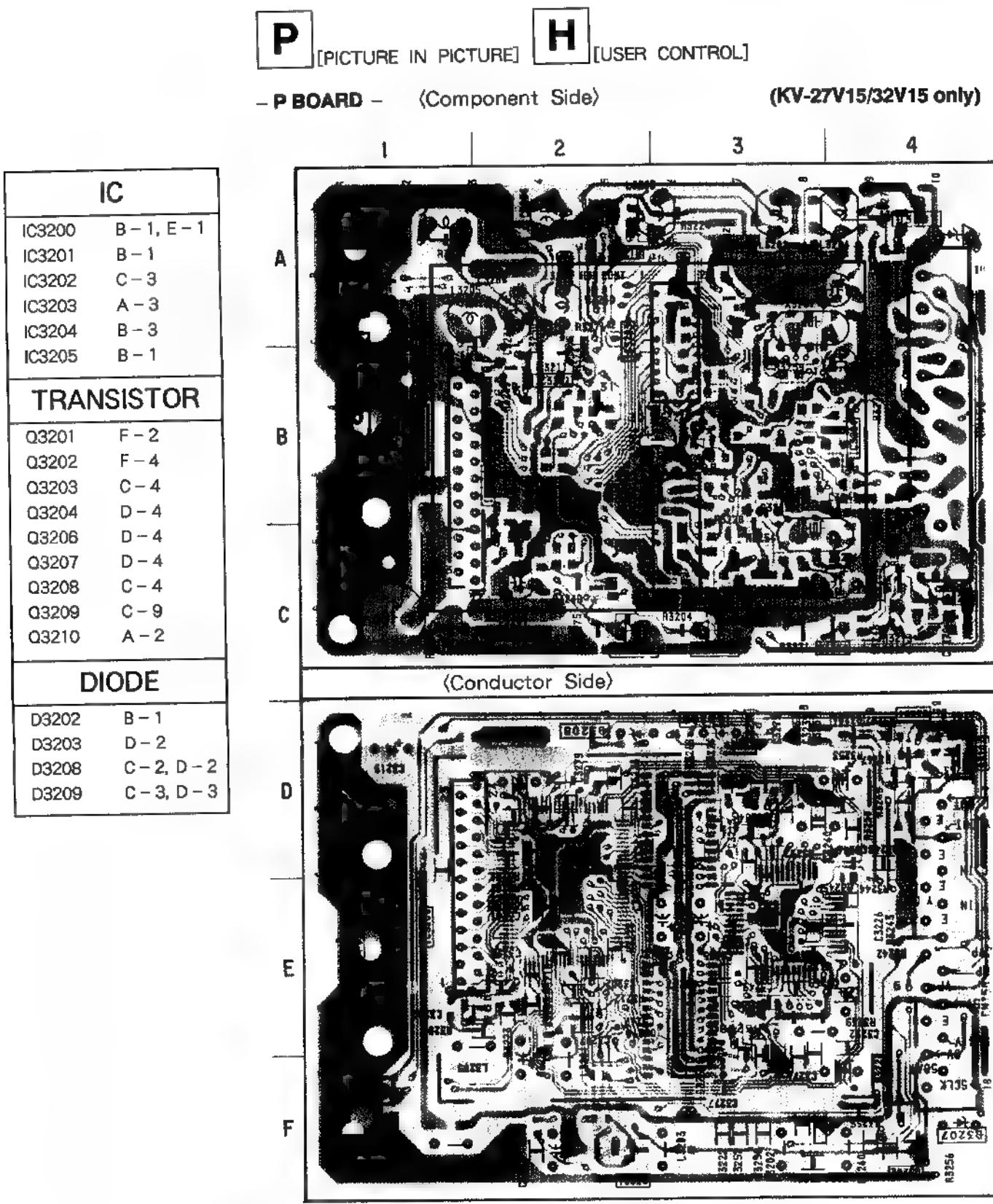
- M BOARD -

Ref	LOCATION	KV-27V10/ 27V15/32V15	KV-29V10C/ 10M
C150	J - 5	0.1	-
C151	J - 5	0.0068	-
C152	I - 5	10	-
C153	I - 5	0.0033	-
C154	I - 5	0.1 /25V	-
C155	I - 5	10	-
C156	I - 8	560P	-
C157	I - 6	0.1 / 25V	-
C158	I - 4	1	-
C315	F - 8	10	-
C316	F - 8	10	-
C317	F - 8	10	-
CN134	A - 3	6P	-
CN163	A - 2	5P	-
D004	G - 15	MA110	-
D150	H - 4	MA110	-
IC150	I - 4	MC144143	-
L150	I - 5	10 μ H	-
Q151	I - 6	2SD601A	-
R055	F - 10	220	-
R060	C - 10	18K	0
R063	F - 10	220	-
R069	G - 12	220	-
R070	F - 10	1K	-
R080	F - 10	-	-
R150	H - 4	100K	-
R151	I - 5	1K	-
R152	I - 5	1K	-
R153	I - 5	6.8K	-
R154	I - 5	470	-
R155	I - 6	1K	-
R157	I - 8	10K	-
R158	I - 8	10K	-
R159	F - 5	1K	-
R160	F - 5	1K	-
R161	F - 6	1K	-
R162	G - 5	4.7K	-
R163	H - 5	4.7K	-
R164	H - 5	4.7K	-
R165	H - 4	4.7K	-
R166	I - 4	1K	-
R168	I - 4	1K	-

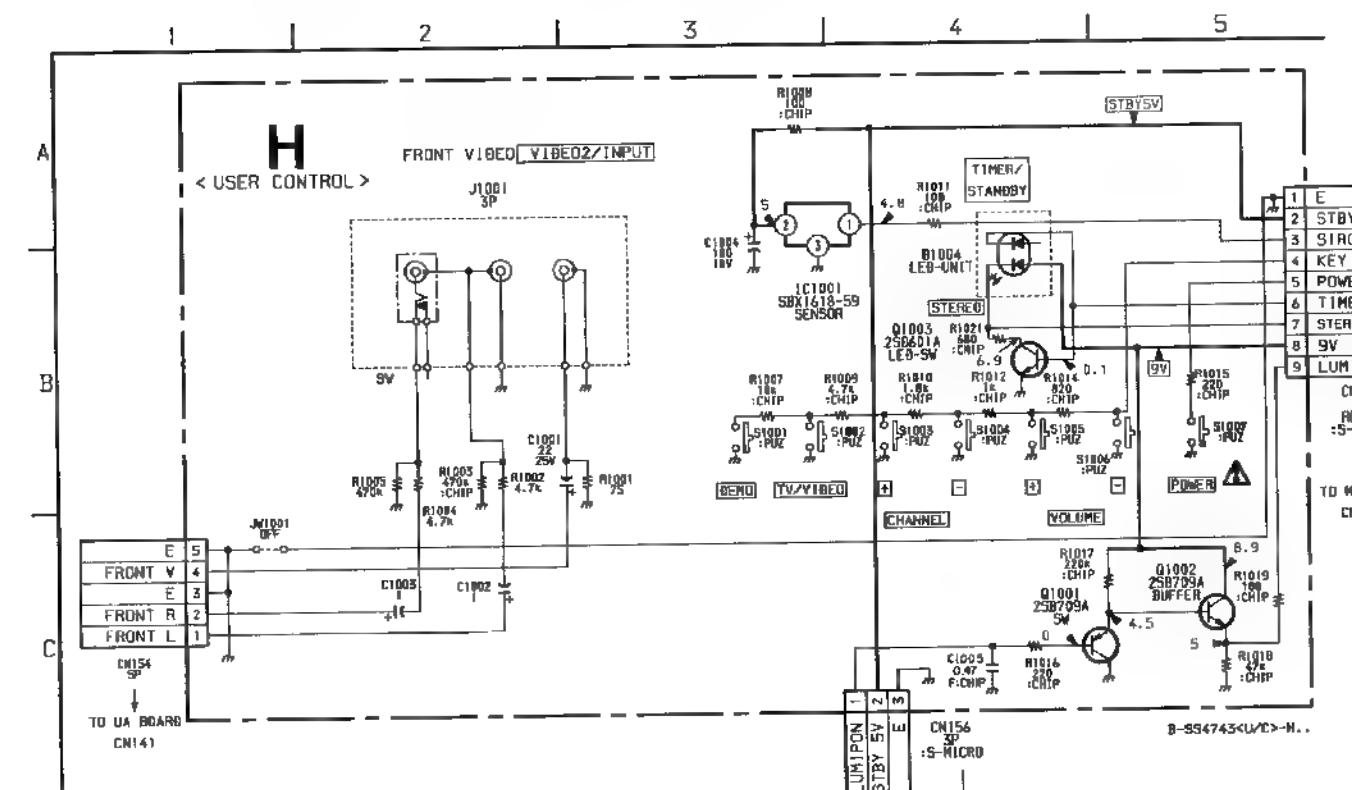
NOT MOUNT

M BOARD WAVEFORMS





- : Pattern from the side which enables seeing.
- : Pattern of the rear side.



Schematic diagrams

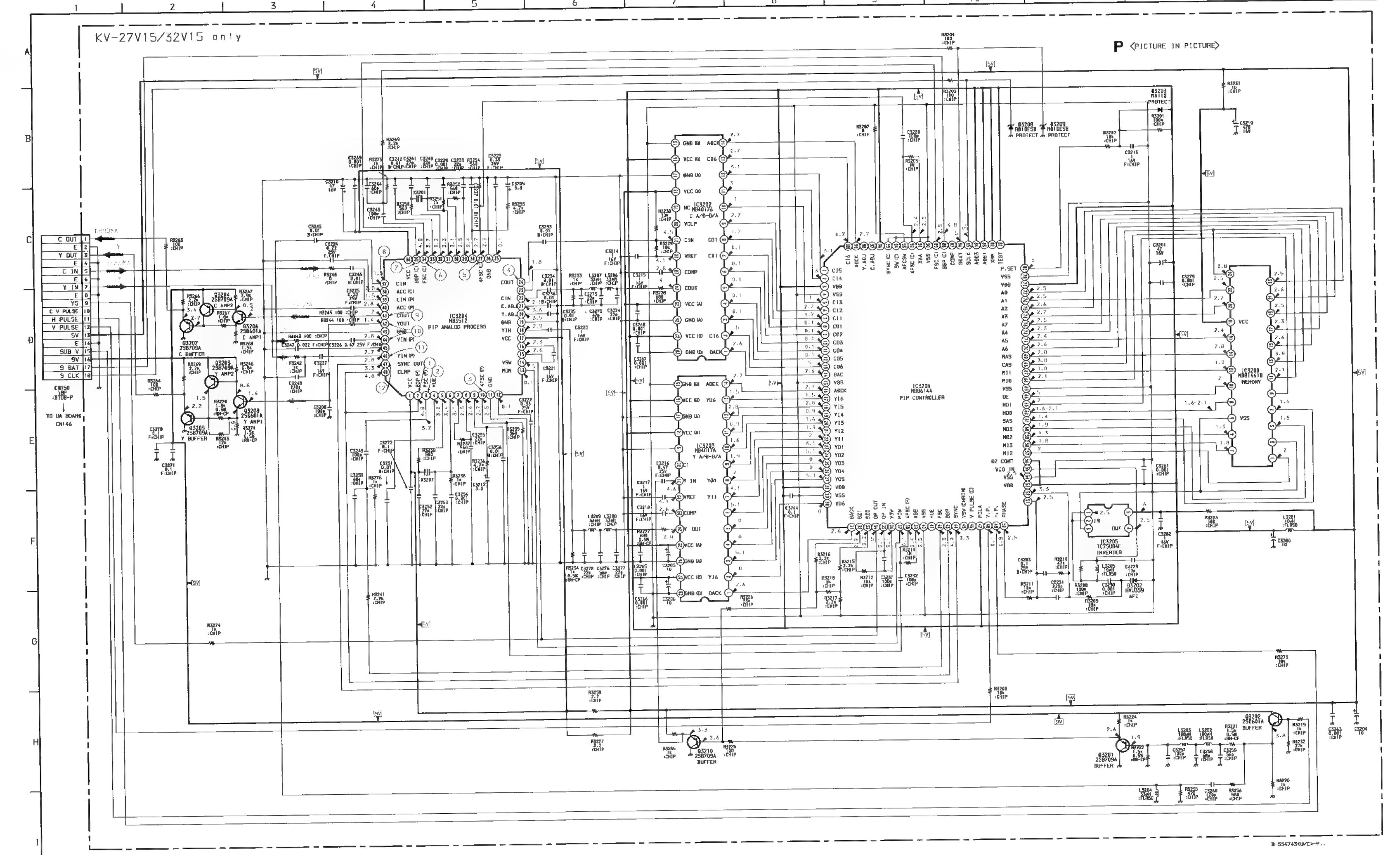
Schematic diagrams

H P boards

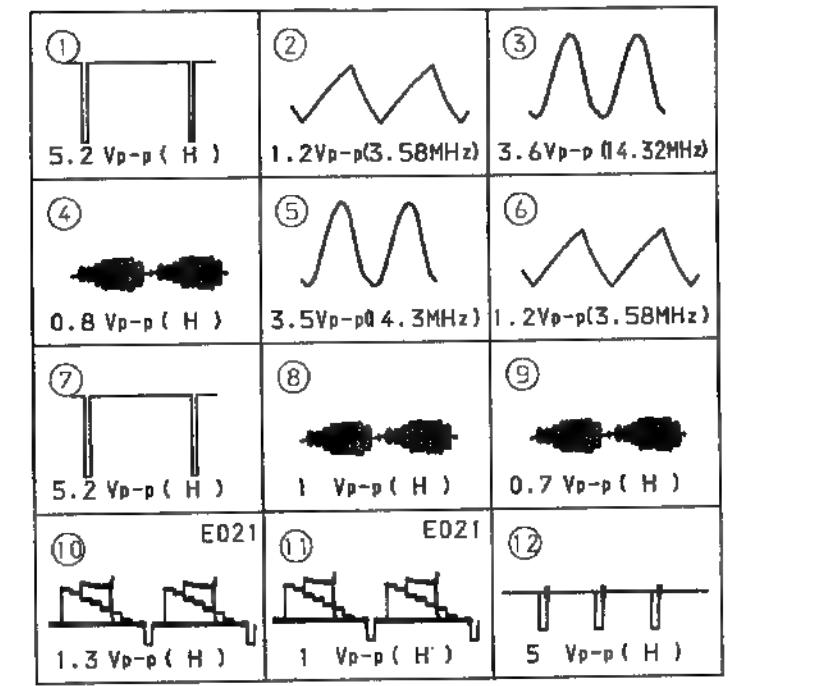
← M board

- 77 -

(KV-27V15/32V15 on)



- P BOARD WAVEFORMS

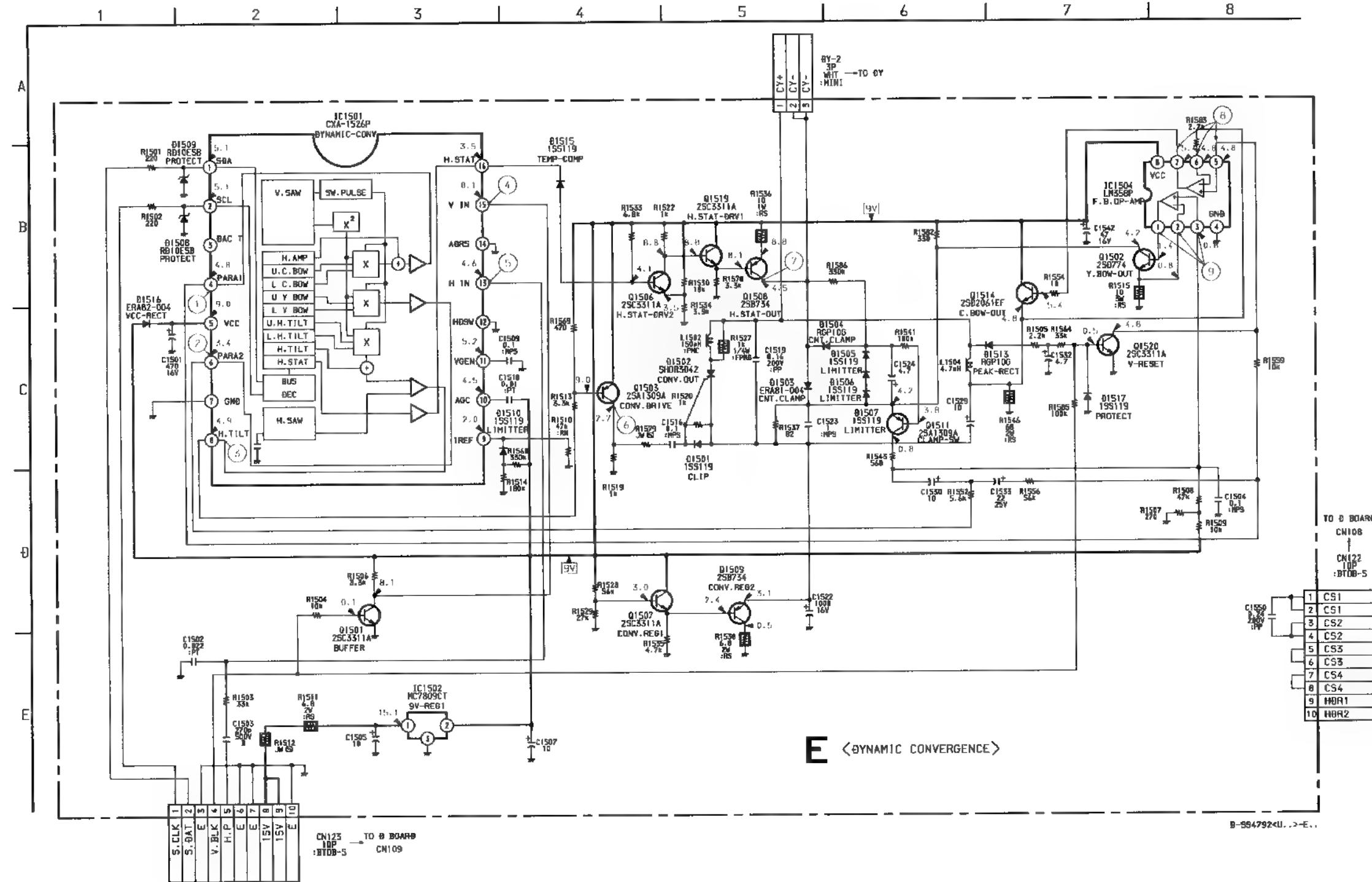


KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101

KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101

KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101

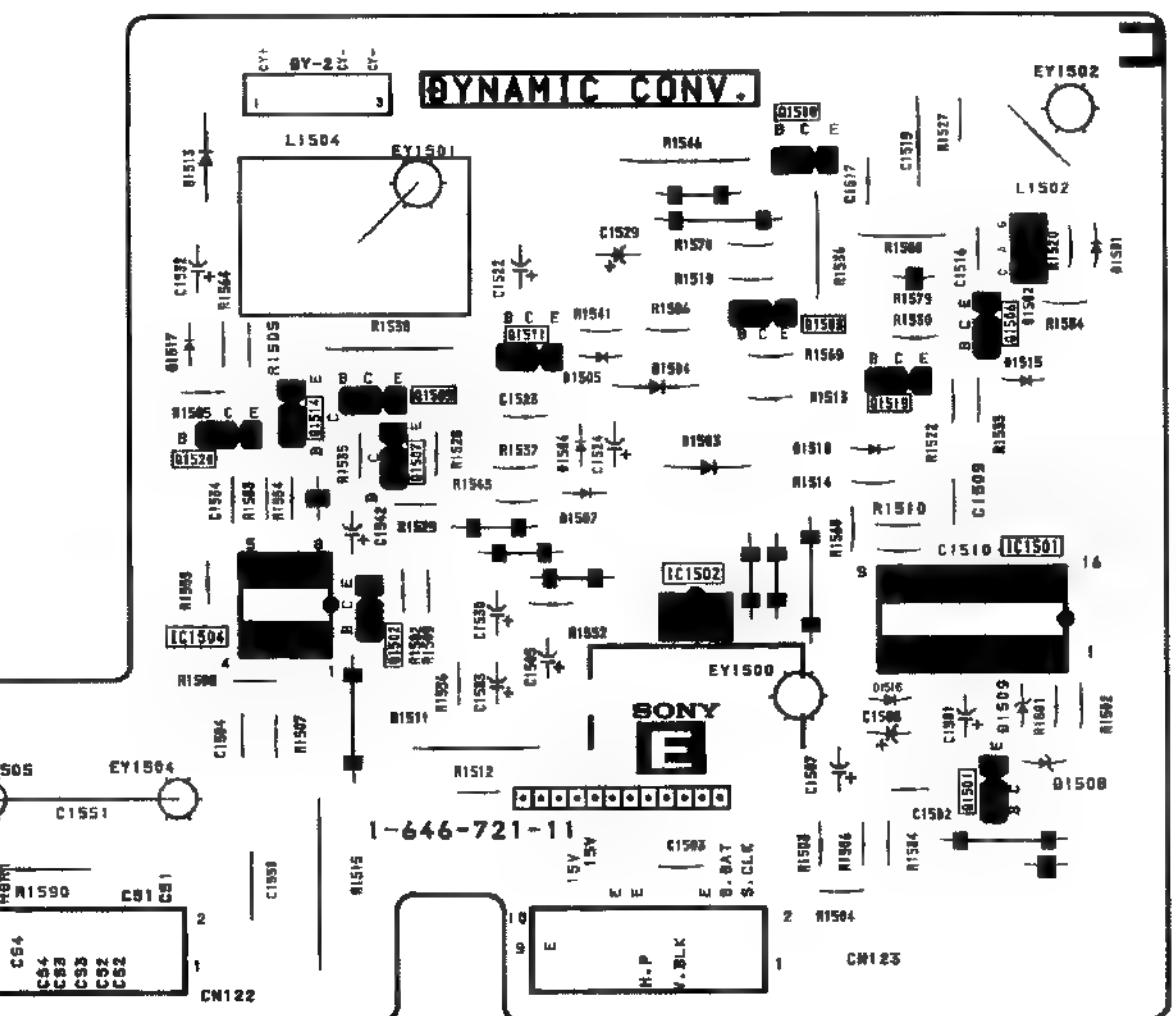
(KV-32V15 only)



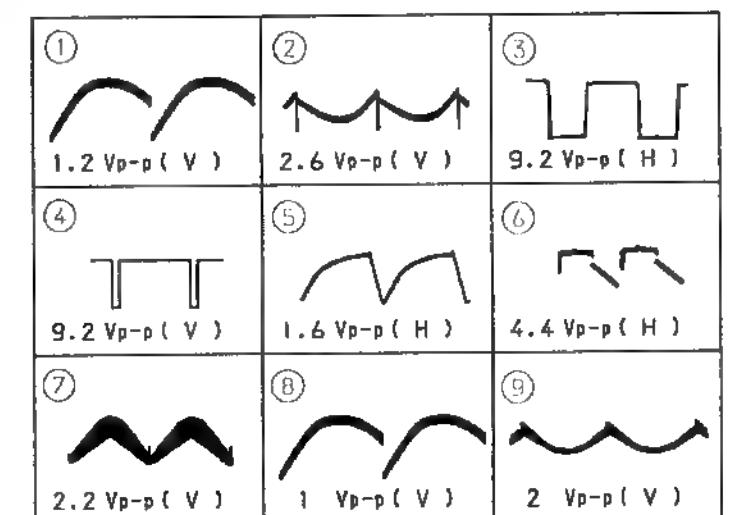
E [DYNAMIC CONVERGENCE]

- E BOARD - (Conductor Side)

(KV-32V15 only)



- E BOARD WAVEFORMS



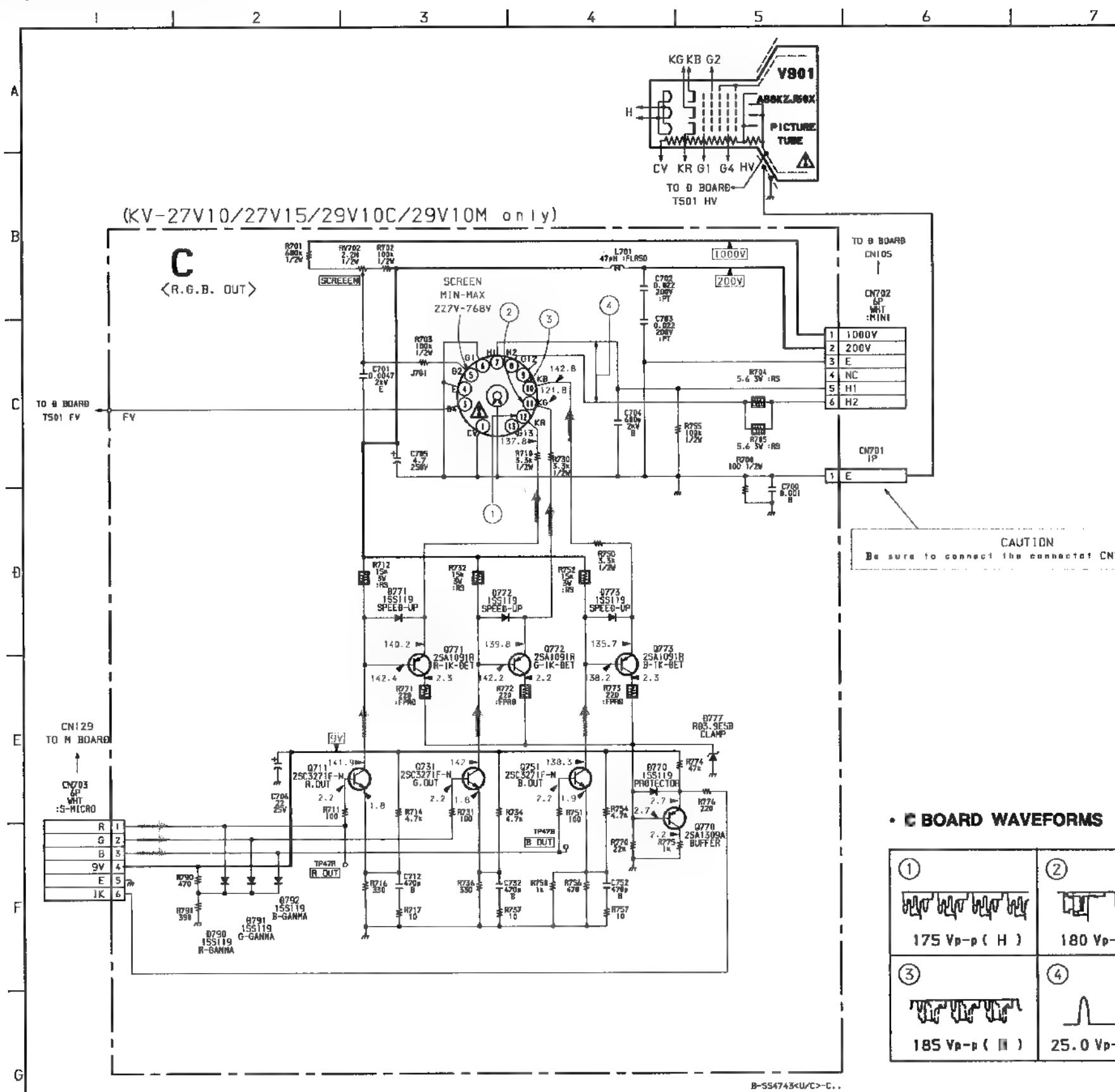
Schematic diagrams

← E board

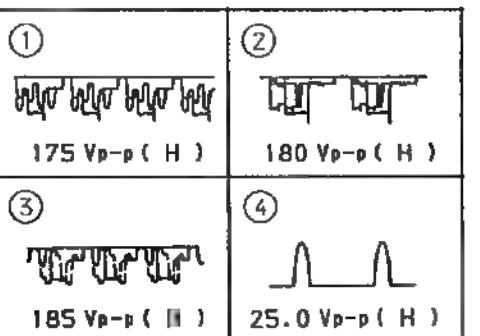
Schematic diagrams

C board →

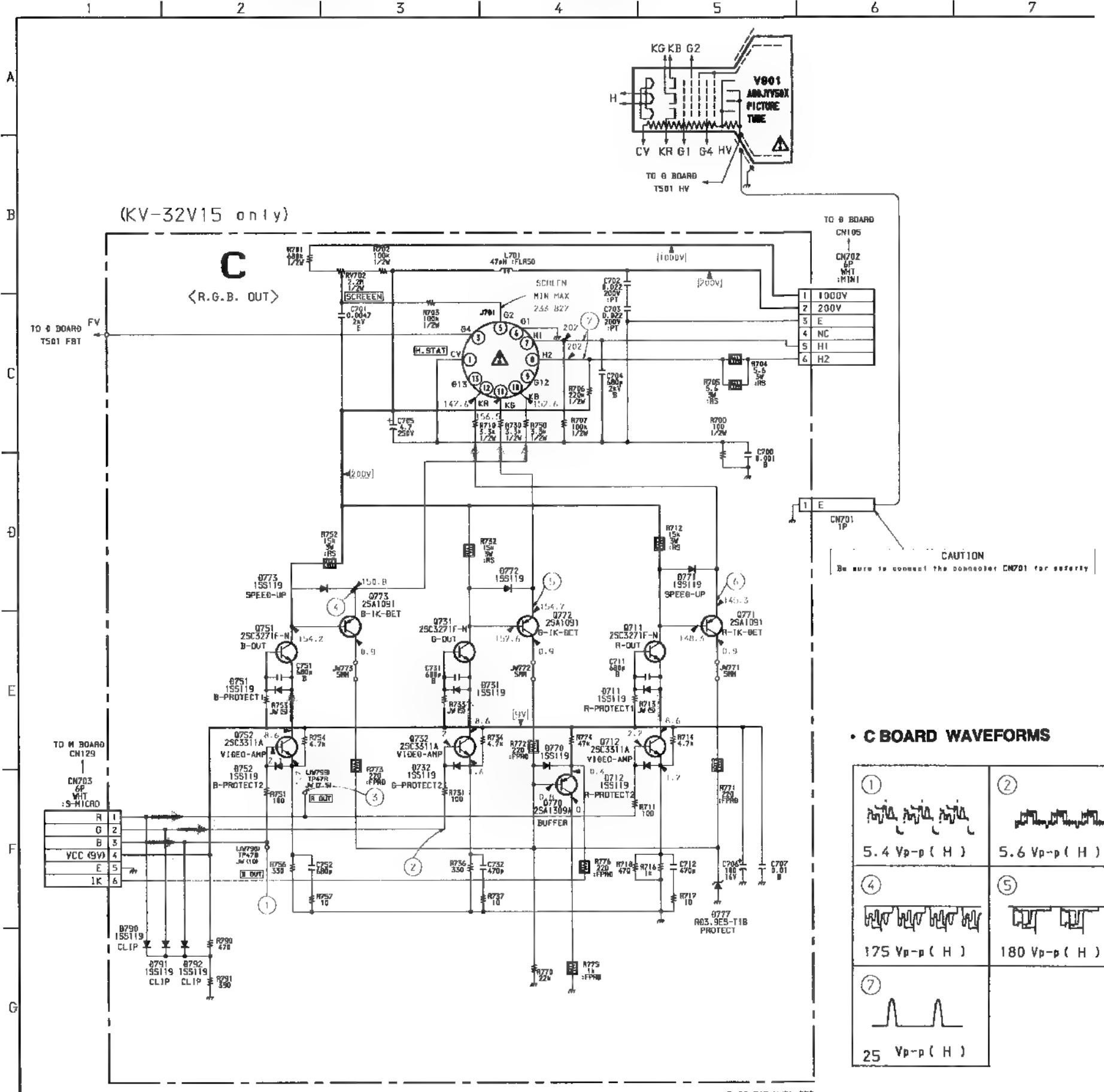
(KV-27V10/27V15/29V10C/29V10M only)



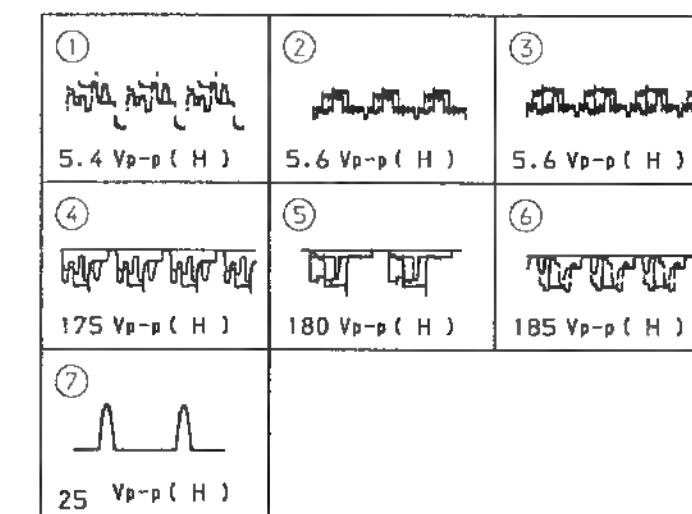
- C BOARD WAVEFORMS



(2V15 only)



- C BOARD WAVEFORMS



V10/27V15
-Y117 RM-Y121
V10C/29V
RM-Y117 RM

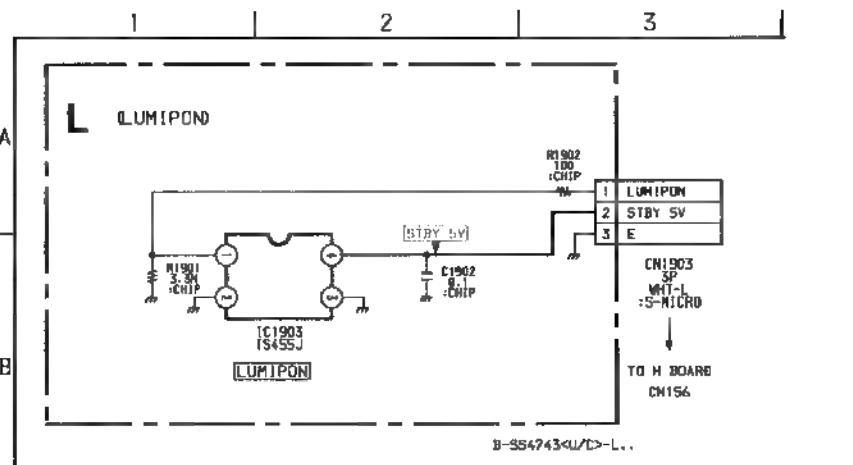
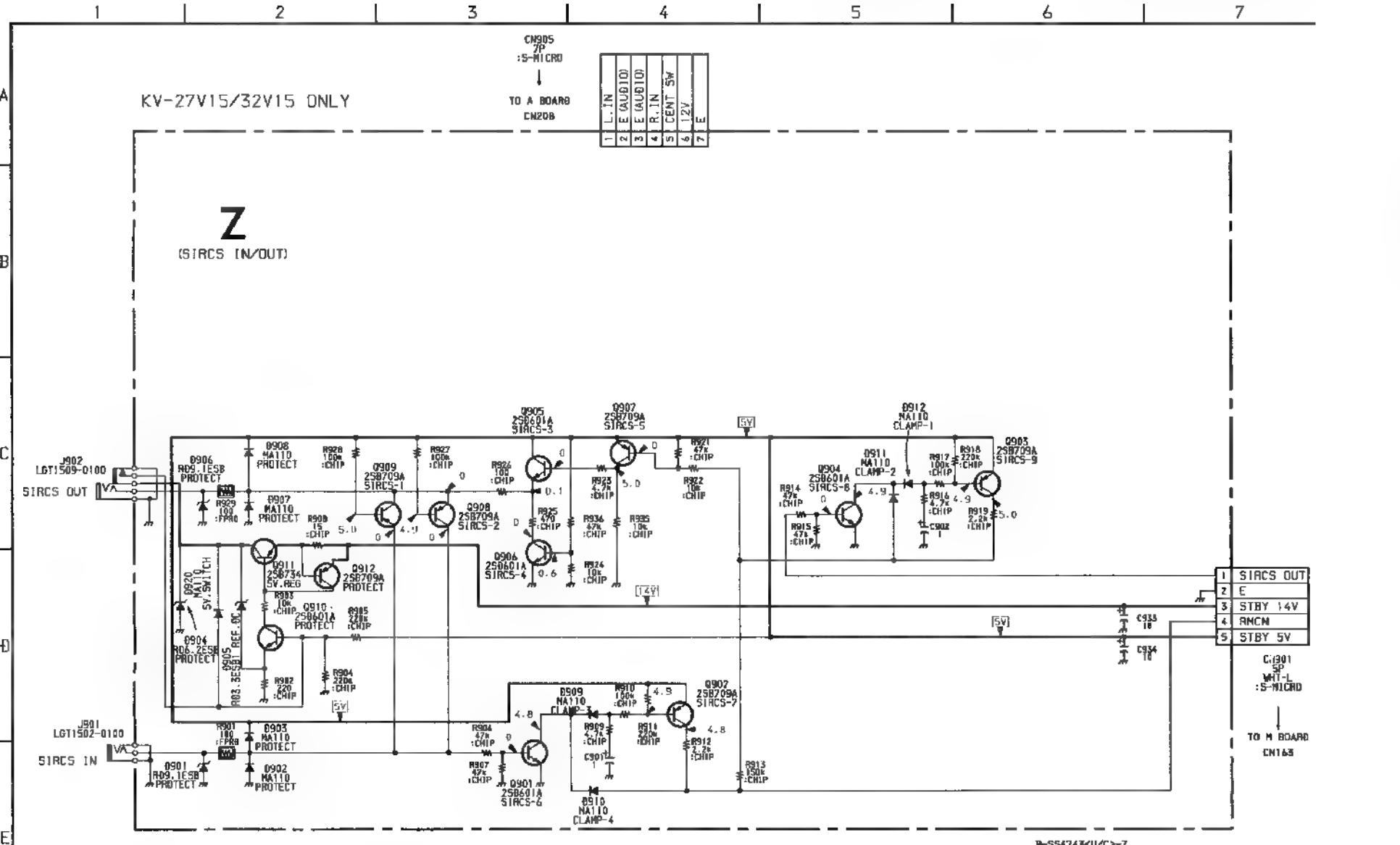
RM-CM101
DM/32V15
Y117 RM-Y121

KV-2
R
KV-2

V10/27V15
-Y117 RM-Y121
V10C/29V1
RM-Y117 RM-

RM-CM101
DM/32V15
9117 RM-Y121

(KV-27V15/32V15 only)

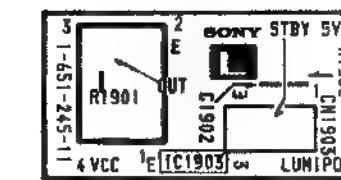
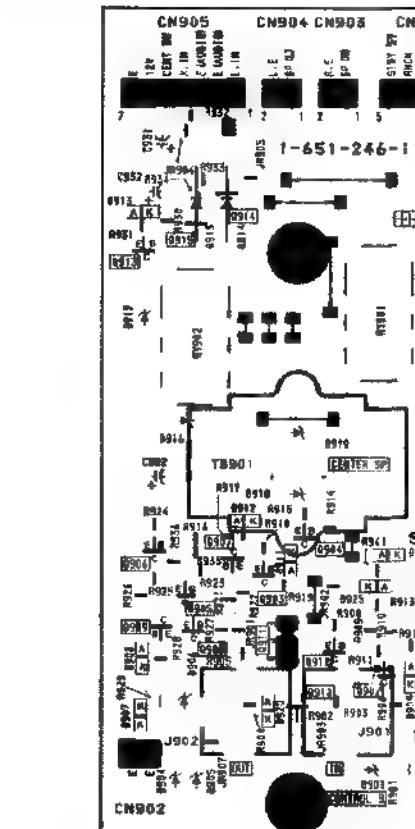
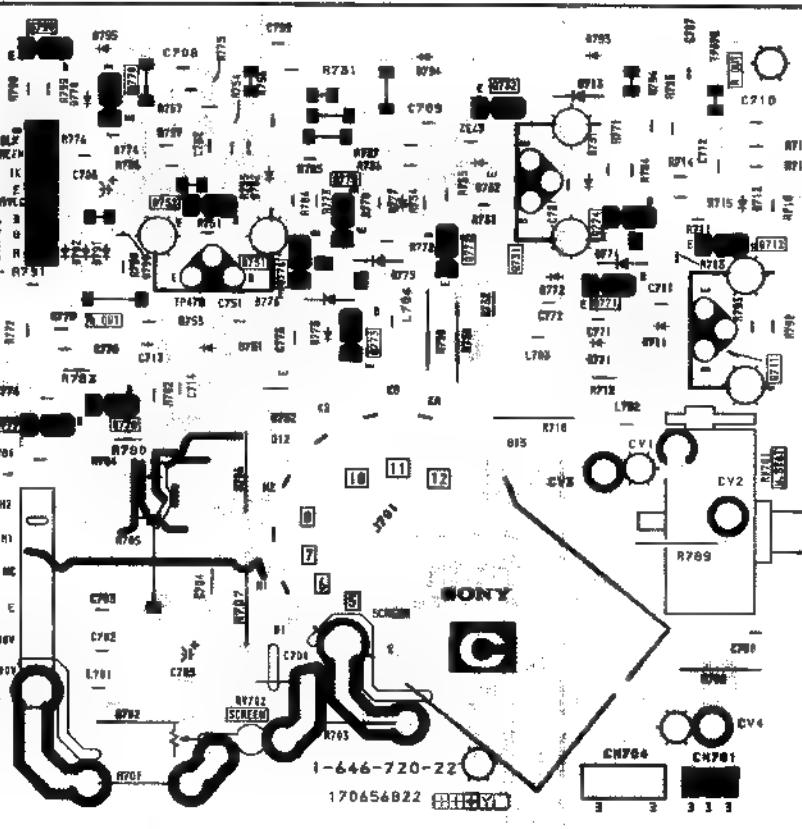


C [R. G. B. OUT] **Z** [SIRCS IN/OUT] **L** [LUMIPON]

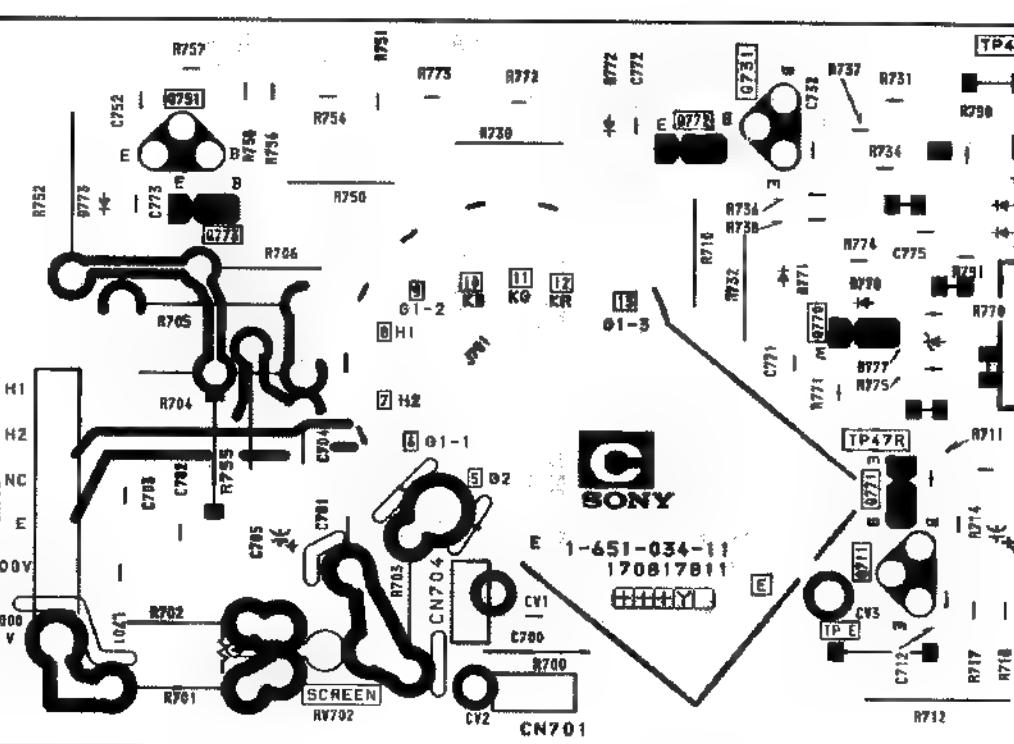
C BOARD - (KV-32V15 only) (Conductor Side)

(Conductor Side)

L BOARD = <Conductor Side>



C BOARD – (KV-27V10/27V15/29V10C/29V10M only) (Conductor S



Schematic diagram

6-5. SEMICONDUCTORS

BU4053BF
CXA1315M



CXA1213BS
CXA1465AS
CXA1545A5



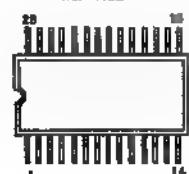
CXA1526P
MB40176PF-G-BND-EF



CXP80424-SV4782
CXP80424-SV4789
CXP8522B-SV4745



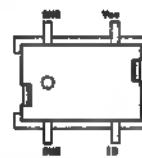
CXP80424-0775



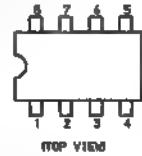
DM-48
PM-38
PM-39



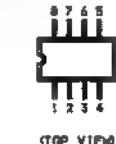
154555



LM358P
ST24C02AB1
ST24C01B1
#PC358C
#PC393C
24C02A1/P



LM358PS
MM1114XFF
MM1118XFF



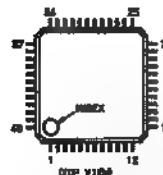
LM7805CT
LM7812CT
MC7809CT
NJM78M09FA
NJM7812FA



L78LR05B-MA



MB3512PFQ-G-BND-EF



SI-3120C



STR81159A



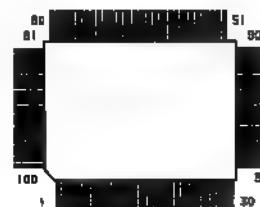
MB81461B-12RS-PSZ



TC7SU04F



MB86144BPF-G-BND



TBA2009A
T8A7262



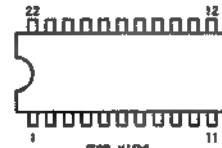
MC144143P1



TDA8172



M52470AP
M52470P



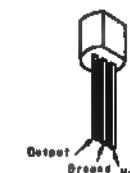
TDA8424



NJM78L05A



μ PC78L05J



SBX1618-H9
SBX1618-51



Output
Ground
V_{ee}

2SA1091-0
2SA1091-R
2SC2551-0



2SA1162G
2SB709A
2SB601A



2SA1175-HFE
2SA1309A
2SC2785-HFE
2SC3311A



2SA1306A-Y



2SB1370-EF
2SC3298A-Y
2SC4159-E
2SC4793
2SB2012
2SB2061



2SB733
2SB734
2SC3733
2S0774



2SC2611
2SC2688-LK
2SC3271F-N



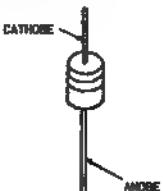
2SC4834MNP



2SC4927-01
2SC4927-02



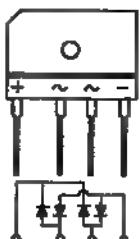
Ø1NS4
Ø1N20R
ERA82-004TP
ERA83-006
ERA85-009
RØ10ESB
RØ10ESB1
RØ10ESB2
RØ12ESB3
RØ13ESB2
RØ3.3ESB2
RØ3.9ESB2
RØ33ESB1
RØ39ESB4
RØ5.1ESB
RØ5.1ESB1
RØ6.2ESB2
RØ8.2ESB3
RØ9.1ESB1
RØ9.1ESL
ISS119



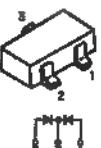
Ø2S4MF
Ø2S4MTA1



Ø4SB60L



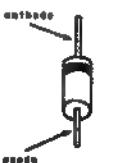
Ø5SC4M



EGP20G
EL1Z
GP08Ø
RGP02-17EL-6433
RGP10GPKG3
RGP10GPKG23
ISS83

ERA81-004
ERA83-006
ERC06-155
S2L20UF
S3V10SS

ERØ29-08J



ES1F-LF-G2



GP08ØPKG3



HVU359TRF
MA110
1T33



SHØR3Ø42



CATHODE

ANODE

GATE

ANODE

CATHODE

ANODE

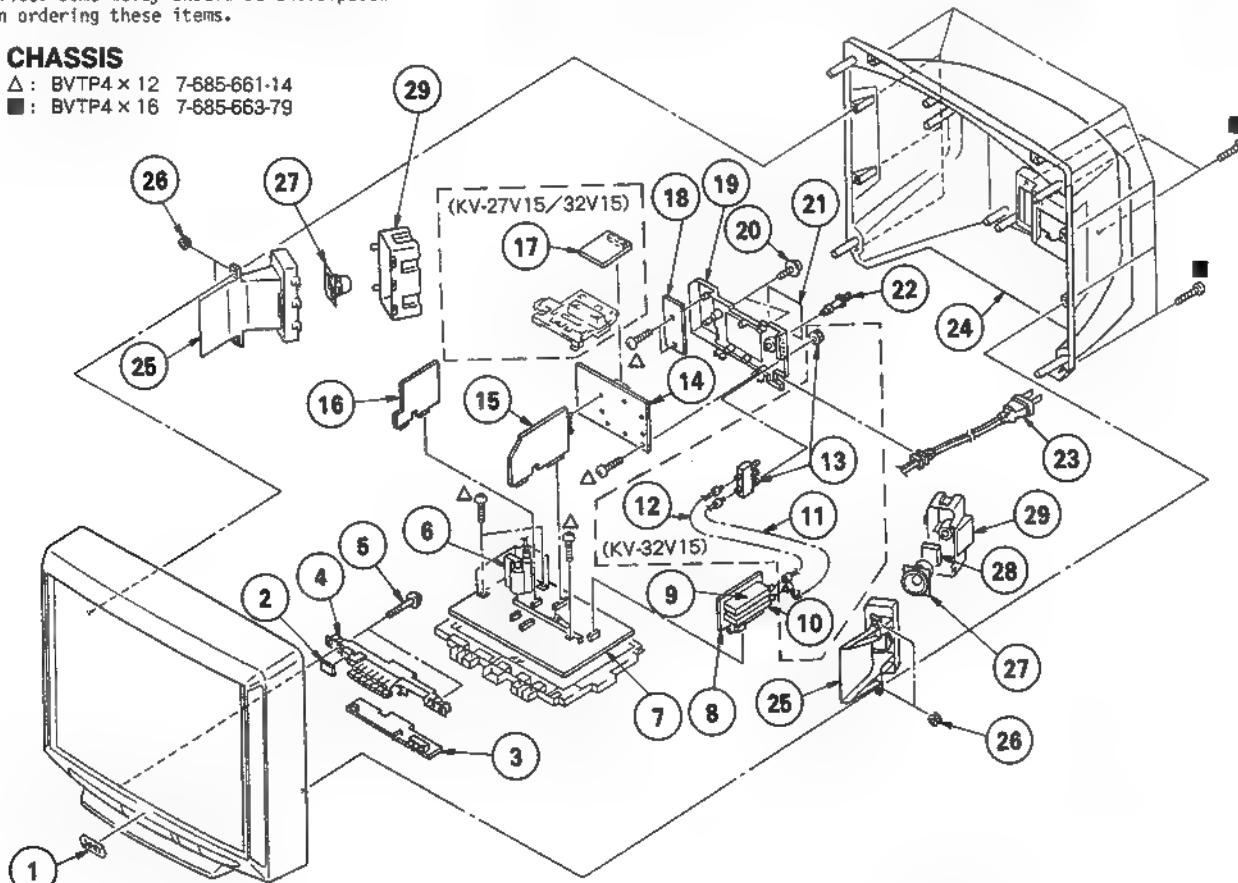
SECTION 7 EXPLODED VIEWS

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

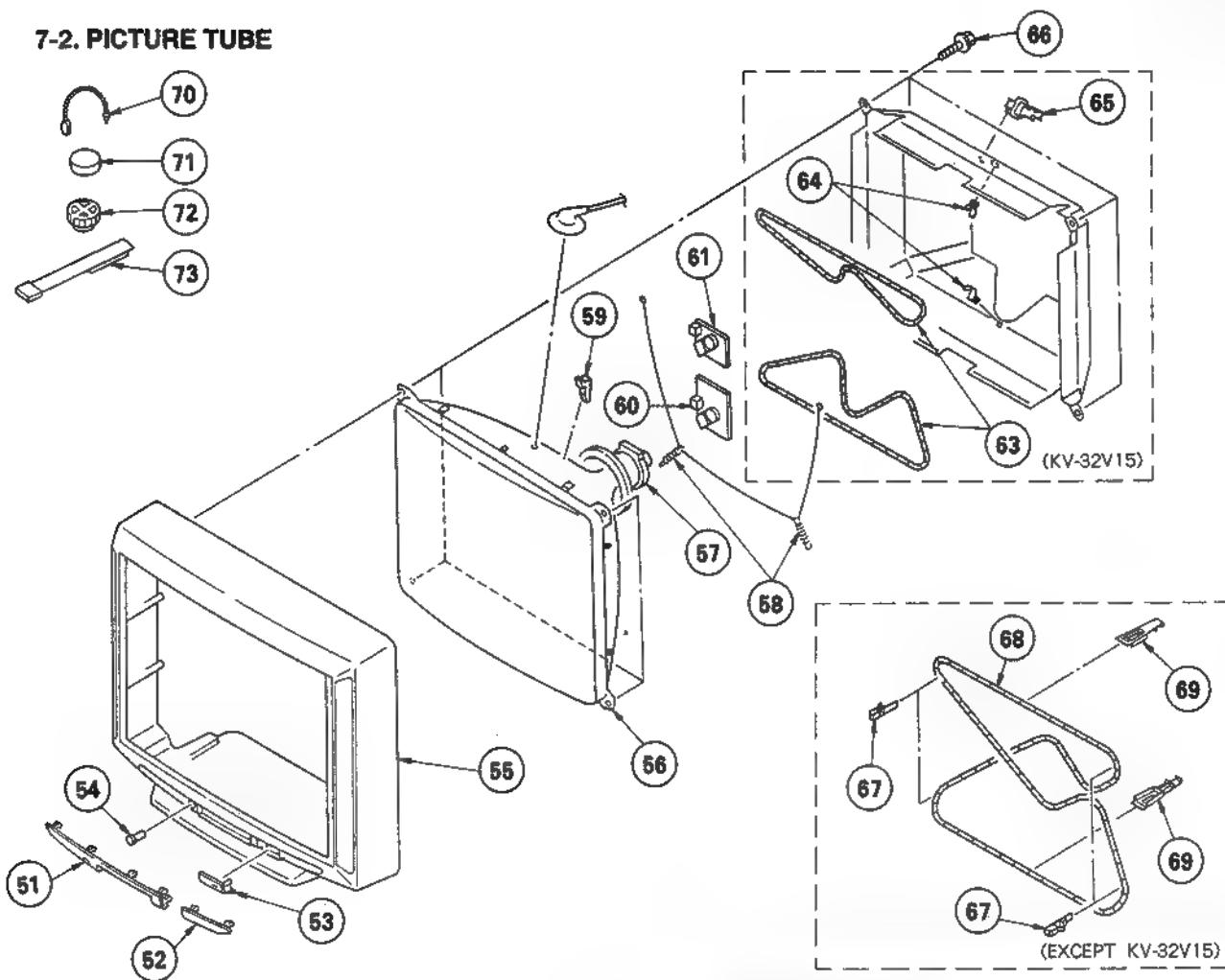
7-1. CHASSIS

△: BVTP4 x 12 7-685-661-14
 ■: BVTP4 x 16 7-685-663-79



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
1	4-394-048-01	EMBLEM (NO.9), SONY		16	*A-1341-622-A	E BOARD, COMPLETE (KV-32V15)	
2	*1-651-245-11	L BOARD		17	*A-1195-062-A	P BOARD, COMPLETE (KV-27V15/32V15)	
3	*1-646-717-11	H BOARD		18	A-1390-411-A	Z BOARD, COMPLETE (KV-27V15/32V15)	
4	4-043-580-01	BUTTON, MULTI		19	4-039-517-11	PANEL, ANTENNA TERMINAL (KV-32V15)	
5	4-319-520-11	SCREW, SPECIAL (+PW4X30)			4-039-524-21	PANEL, ANTENNA TERMINAL (KV-27V15)	
6	△A-1453-416-11	TRANSFORMER ASSY, FLYBACK (NX-2604A3)		20	4-039-524-31	PANEL, ANTENNA TERMINAL (KV-27V10/29V10C/29V10M)	
7	*A-1346-192-A	D BOARD, COMPLETE (KV-27V10/29V10M)		21	4-382-854-11	SCREW (M3X10), P, SW (+)	
	*A-1346-199-A	D BOARD, COMPLETE (KV-29V10C)		22	4-039-834-01	LABEL, TERMINAL	
	*A-1346-200-A	D BOARD, COMPLETE (KV-27V15)			1-573-657-11	PLAUG, F-PIN (KV-27V10/27V15/29V10C/29V10M)	
	*A-1346-201-A	D BOARD, COMPLETE (KV-32V15)		23	△A-1751-056-11	CORD, POWER (WITH CONNECTOR) 6A/250V (KV-29V10C)	
8	*A-1297-221-A	A BOARD, COMPLETE (KV-27V10/27V15/29V10C/29V10M)			△A-1751-059-11	CORD, POWER (WITH CONNECTOR) 10A/125V (KV-27V10/27V15/29V10M/32V15)	
	*A-1297-233-A	A BOARD, COMPLETE (KV-32V15)		24	4-043-579-01	COVER, REAR (KV-32V15)	
9	△A-8-598-254-00	TUNER BTF-WA402			4-043-661-01	COVER, REAR (KV-27V10/27V15/29V10C/29V10M)	
10	△A-8-598-047-00	TUNER (KV-32V15)		25	4-043-457-01	BAFFLE, SPEAKER	
11	*1-751-136-11	CABLE, PIN (KV-32V15)		26	4-374-745-11	CUSHION (A)	
12	*1-751-135-11	CABLE, PIN (KV-32V15)		27	1-504-524-11	SPEAKER (8CM)	
13	1-417-178-11	SELECTOR, ANTENNA (AS-2) (KV-32V15)		29	4-043-458-01	COVER, SPEAKER	
14	*A-1394-527-A	UA BOARD, COMPLETE (KV-27V15)					
	*A-1394-529-A	UA BOARD, COMPLETE (KV-32V15)					
	*A-1394-552-A	UA BOARD, COMPLETE (KV-27V10/29V10C/29V10M)					
15	*A-1306-454-A	M BOARD, COMPLETE (KV-27V10/27V15/32V15)					
	*A-1306-462-A	M BOARD, COMPLETE (KV-29V10C/29V10M)					

7-2. PICTURE TUBE



The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
51	4-043-659-01	PANEL (LEFT), CONTROL		63	Δ I-402-952-12	COIL, DEMAGNETIZATION (KV-32V15)	
52	4-043-658-01	PANEL (RIGHT), CONTROL		64	*4-371-629-01	STOPPER, WIRE (KV-32V15)	
53	4-043-433-01	DOOR, CONTROL	(KV-27V10/27V15/29V10C/29V10M)	65	4-033-681-01	HOLDER, LEAD (KV-32V15)	
	4-043-433-21	DOOR, CONTROL (KV-32V15)		66	4-041-268-01	SCREW (7), TAPPING	
54	*4-389-517-01	GUIDE (R), LIGHT		67	4-040-388-01	HOLDER(S), DGC	(KV-27V10/27V15/29V10C/29V10M)
55	4-043-578-01	CABINET (WITH BEZEL) (KV-32V15)		68	Δ I-406-726-22	COIL, DEMAGNETIZATION (KV-27V10/27V15/29V10M)	
	4-043-660-01	CABINET (WITH BEZEL)	(KV-27V10/27V15/29V10C/29V10M)		Δ I-406-726-41	COIL, DEMAGNETIZATION (KV-29V10C)	
56	Δ 8-733-723-05	PICTURE TUBE (A80JYV50X) (KV-32V15)		69	4-040-387-01	HOLDER(M), DGC	(KV-27V10/27V15/29V10C/29V10M)
	Δ 8-733-848-05	PICTURE TUBE (A68KZJ50X)	(KV-27V10/27V15/29V10C/29V10M)	70	4-308-870-00	CLIP, LEAD WIRE	
57	Δ 8-451-275-42	DEFLECTION YOKE Y28PFA(VTM)	(KV-27V10/27V15/29V10C/29V10M)	71	I-452-032-00	MAGNET, DISK; 10MM ϕ	
	Δ 8-451-315-41	DEFLECTION YOKE Y34FXA(VTM) (KV-32V15)		72	I-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
58	4-036-329-01	SPRING (B), TENSION		73	X-4306-312-0	PERMALLOY ASSY, CONVERGENCE	
59	4-041-361-01	SPACER, DEFLECTION YOKE					
60	*A-1331-351-A	C BOARD, COMPLETE (KV-32V15)					
61	*A-1331-327-A	C BOARD, COMPLETE	(KV-27V10/27V15/29V10C/29V10M)				

SECTION 8 ELECTRICAL PARTS LIST

P (KV-27V15/32V15)

NOTE:

The components identified by shading and mark **A** are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et une marque **A** sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

- Items marked "A" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS

MF : μF , PF : μF MMH : mH , UH : μH

- The components identified by **B** in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK				
*A-1195-062-A		P BOARD, COMPLETE (KV-27V15/32V15)		C3249	1-163-117-00	CERAMIC CHIP 100PF	5% 50V				
		*****		C3250	1-163-113-00	CERAMIC CHIP 68PF	5% 50V				
				C3251	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V				
				C3252	1-163-103-00	CERAMIC CHIP 27PF	5% 50V				
<CAPACITOR>											
C3201	1-124-477-11	ELECT 47MF	20% 16V	C3253	1-163-101-00	CERAMIC CHIP 22PF	5% 50V				
C3203	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C3254	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V				
C3204	1-124-907-11	ELECT 10MF	20% 50V	C3255	1-163-101-00	CERAMIC CHIP 22PF	5% 50V				
C3205	1-124-907-11	ELECT 10MF	20% 50V	C3256	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V				
C3206	1-124-907-11	ELECT 10MF	20% 50V	C3257	1-163-117-00	CERAMIC CHIP 100PF	5% 50V				
C3207	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C3258	1-163-113-00	CERAMIC CHIP 68PF	5% 50V				
C3208	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C3259	1-163-111-00	CERAMIC CHIP 56PF	5% 50V				
C3209	1-126-962-11	ELECT 3.3MF	20% 50V	C3260	1-163-119-00	CERAMIC CHIP 120PF	5% 50V				
C3210	1-124-477-11	ELECT 47MF	20% 16V	C3261	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V				
C3212	1-126-962-11	ELECT 3.3MF	20% 50V	C3263	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V				
C3213	1-164-346-11	CERAMIC CHIP 1MF	16V	C3264	1-165-319-11	CERAMIC CHIP 0.1MF	50V				
C3214	1-164-346-11	CERAMIC CHIP 1MF	16V	C3265	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V				
C3215	1-164-346-11	CERAMIC CHIP 1MF	16V	C3266	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V				
C3216	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C3267	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V				
C3217	1-164-346-11	CERAMIC CHIP 1MF	16V	C3268	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V				
C3218	1-164-346-11	CERAMIC CHIP 1MF	16V	C3269	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V				
C3219	1-126-103-11	ELECT 470MF	20% 16V	C3270	1-165-319-11	CERAMIC CHIP 0.1MF	50V				
C3220	1-164-346-11	CERAMIC CHIP 1MF	16V	C3271	1-165-319-11	CERAMIC CHIP 0.1MF	50V				
C3221	1-164-346-11	CERAMIC CHIP 1MF	16V	C3272	1-165-319-11	CERAMIC CHIP 0.1MF	50V				
C3222	1-164-336-11	CERAMIC CHIP 0.33MF	25V	C3273	1-163-109-00	CERAMIC CHIP 47PF	5% 50V				
C3223	1-164-336-11	CERAMIC CHIP 0.33MF	25V	C3274	1-163-101-00	CERAMIC CHIP 22PF	5% 50V				
C3224	1-164-222-11	CERAMIC CHIP 0.22MF	25V	C3275	1-163-101-00	CERAMIC CHIP 22PF	5% 50V				
C3225	1-164-222-11	CERAMIC CHIP 0.22MF	25V	C3276	1-163-111-00	CERAMIC CHIP 56PF	5% 50V				
C3226	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C3277	1-163-101-00	CERAMIC CHIP 22PF	5% 50V				
C3227	1-164-346-11	CERAMIC CHIP 1MF	16V	C3278	1-163-101-00	CERAMIC CHIP 22PF	5% 50V				
C3228	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C3279	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V				
C3229	1-163-093-00	CERAMIC CHIP 10PF	5% 50V	C3280	1-124-907-11	ELECT 10MF	20% 50V				
C3230	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V	C3282	1-164-346-11	CERAMIC CHIP 1MF	16V				
C3231	1-163-125-00	CERAMIC CHIP 220PF	5% 50V	<CONNECTOR>							
C3232	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	CN150	1-573-297-21	CONNECTOR, BOARD TO BOARD 18P					
C3233	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	<DIODE>							
C3234	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	D3202	8-719-031-68	DIODE HVU359TRF					
C3235	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	D3203	8-719-404-46	DIODE MA110					
C3236	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	D3208	8-719-110-17	DIODE RD10ESB2					
C3237	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	D3209	8-719-110-17	DIODE RD10ESB2					
C3238	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	<IC>							
C3239	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V	IC3200	8-759-971-56	IC MB81461B-12RS-PSZ					
C3240	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	IC3201	8-759-093-29	IC MB86144BPF-G-BND					
C3241	1-163-103-00	CERAMIC CHIP 27PF	5% 50V	IC3202	8-759-093-28	IC MB40176PF-G-BND-EF					
C3242	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	IC3203	8-759-093-28	IC MB40176PF-G-BND-EF					
C3243	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	IC3204	8-759-093-26	IC MB3512PFQ-G-BND-EF					
C3244	1-163-113-00	CERAMIC CHIP 68PF	5% 50V								
C3245	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V								
C3246	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V								
C3247	1-163-033-00	CERAMIC CHIP 0.022MF	50V								
C3248	1-163-125-00	CERAMIC CHIP 220PF	5% 50V								

P (KV-27V15/32V15)

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
IC3205	8-759-243-19	IC TC7SU04P		R3238	1-216-049-00	METAL GLAZE 1K	5% 1/10W
		<COIL>		R3239	1-216-043-00	METAL GLAZE 560	5% 1/10W
L3201	1-410-470-11	INDUCTOR	10UH	R3241	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
L3202	1-408-424-00	INDUCTOR	180UH	R3242	1-216-049-00	METAL GLAZE 1K	5% 1/10W
L3203	1-408-424-00	INDUCTOR	180UH	R3243	1-216-025-00	METAL GLAZE 100	5% 1/10W
L3204	1-410-476-11	INDUCTOR	33UH	R3244	1-216-025-00	METAL GLAZE 100	5% 1/10W
L3205	1-410-470-11	INDUCTOR	10UH	R3245	1-216-025-00	METAL GLAZE 100	5% 1/10W
L3206	1-410-387-11	INDUCTOR	33UH	R3246	1-216-069-00	METAL GLAZE 6.8K	5% 1/10W
L3207	1-410-387-11	INDUCTOR	33UH	R3247	1-216-063-00	METAL GLAZE 3.9K	5% 1/10W
L3208	1-410-387-11	INDUCTOR	33UH	R3248	1-216-295-00	METAL GLAZE 0	5% 1/10W
L3209	1-410-387-11	INDUCTOR	33UH	R3249	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
		<TRANSISTOR>		R3250	1-216-043-00	METAL GLAZE 560	5% 1/10W
Q3201	8-729-216-22	TRANSISTOR 2SA1162-G		R3251	1-216-049-00	METAL GLAZE 1K	5% 1/10W
Q3202	8-729-422-27	TRANSISTOR 2SD601A-Q		R3252	1-216-043-00	METAL GLAZE 560	5% 1/10W
Q3203	8-729-216-22	TRANSISTOR 2SA1162-G		R3253	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
Q3204	8-729-216-22	TRANSISTOR 2SA1162-G		R3254	1-216-043-00	METAL GLAZE 560	5% 1/10W
Q3206	8-729-422-27	TRANSISTOR 2SD601A-Q		R3255	1-216-041-00	METAL GLAZE 470	5% 1/10W
Q3207	8-729-216-22	TRANSISTOR 2SA1162-G		R3256	1-216-043-00	METAL GLAZE 560	5% 1/10W
Q3208	8-729-422-27	TRANSISTOR 2SD601A-Q		R3259	1-216-298-00	METAL GLAZE 2.2	5% 1/10W
Q3209	8-729-216-22	TRANSISTOR 2SA1162-G		R3260	1-216-073-00	METAL GLAZE 10K	5% 1/10W
Q3210	8-729-216-22	TRANSISTOR 2SA1162-G		R3263	1-216-025-00	METAL GLAZE 100	5% 1/10W
		<RESISTOR>		R3264	1-216-025-00	METAL GLAZE 100	5% 1/10W
R3201	1-216-097-00	METAL GLAZE 100K	5% 1/10W	R3265	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R3202	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R3266	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R3203	1-216-025-00	METAL GLAZE 100	5% 1/10W	R3267	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W
R3204	1-216-025-00	METAL GLAZE 100	5% 1/10W	R3268	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W
R3205	1-216-121-00	METAL GLAZE 1M	5% 1/10W	R3269	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R3207	1-216-295-00	METAL GLAZE 0	5% 1/10W	R3270	1-216-657-11	METAL CHIP 1.8K	0.50% 1/10W
R3208	1-216-097-00	METAL GLAZE 100K	5% 1/10W	R3271	1-216-655-11	METAL CHIP 1.5K	0.50% 1/10W
R3209	1-216-079-00	METAL GLAZE 18K	5% 1/10W	R3273	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R3210	1-216-089-91	METAL GLAZE 47K	5% 1/10W	R3274	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R3211	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R3275	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R3212	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R3276	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R3213	1-216-075-00	METAL GLAZE 12K	5% 1/10W	R3277	1-216-298-00	METAL GLAZE 2.2	5% 1/10W
R3214	1-216-121-00	METAL GLAZE 1M	5% 1/10W			<CRYSTAL>	
R3215	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	X3201	1-567-878-11	VIBRATOR, CRYSTAL	
R3216	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	X3202	1-567-878-11	VIBRATOR, CRYSTAL	

R3217	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	*A-1297-221-A	A BOARD, COMPLETE		
R3218	1-216-049-00	METAL GLAZE 1K	5% 1/10W			*****	
R3219	1-216-049-00	METAL GLAZE 1K	5% 1/10W			(KV-27V10/27V15/29V10C/29V10M)	
R3220	1-216-049-00	METAL GLAZE 1K	5% 1/10W	*A-1297-233-A	A BOARD, COMPLETE (KV-32V15)		
R3221	1-216-655-11	METAL CHIP 1.5K	0.50% 1/10W			*****	
R3222	1-216-655-11	METAL CHIP 1.5K	0.50% 1/10W			<CAPACITOR>	
R3223	1-216-025-00	METAL GLAZE 100	5% 1/10W	C173	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
R3224	1-216-049-00	METAL GLAZE 1K	5% 1/10W	C174	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
R3225	1-216-025-00	METAL GLAZE 100	5% 1/10W	C175	1-126-935-11	ELECT 470MF	20% 16V
R3226	1-216-085-00	METAL GLAZE 33K	5% 1/10W	C176	1-126-935-11	ELECT 470MF	20% 16V
R3227	1-216-647-11	METAL CHIP 680	0.50% 1/10W	C177	1-126-964-11	ELECT 10MF	20% 50V
R3228	1-216-045-00	METAL GLAZE 680	5% 1/10W	C178	1-126-933-11	ELECT 100MF	20% 16V
R3229	1-216-073-00	METAL GLAZE 10K	5% 1/10W	C179	1-124-916-11	ELECT 22MF	20% 25V
R3230	1-216-073-00	METAL GLAZE 10K	5% 1/10W	C180	1-124-916-11	ELECT 22MF	20% 25V
R3231	1-216-001-00	METAL GLAZE 10	5% 1/10W			(KV-32V15)	
R3232	1-216-083-00	METAL GLAZE 27K	5% 1/10W	C181	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V
R3233	1-216-049-00	METAL GLAZE 1K	5% 1/10W	C182	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V
R3234	1-216-651-11	METAL CHIP 1K	0.50% 1/10W	C184	1-126-964-11	ELECT 10MF	20% 50V
R3235	1-216-043-00	METAL GLAZE 560	5% 1/10W	C185	1-126-964-11	ELECT 10MF	20% 50V
R3236	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W			(KV-32V15)	
R3237	1-216-043-00	METAL GLAZE 560	5% 1/10W			(KV-32V15)	

KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101

A M

REF. NO. PART NO.

DESCRIPTION

REMARK

REF. NO. PART NO.

DESCRIPTION

REMARK

<CONNECTOR>						
CN103	*1-564-519-11	PLUG, CONNECTOR 4P			TU101A	\$-598-254-00 TUNER BTF-WA402
CN151	1-573-979-21	CONNECTOR, BOARD TO BOARD 11P			TU102A	\$-598-047-00 TUNER (KV-32V15)
CN152	1-750-394-11	PIN, CONNECTOR (STAKING) 32P			*****	
CN164	1-564-505-11	PLUG, CONNECTOR 2P			*A-1306-454-A M BOARD, COMPLETE (KV-27V10/27V15/32V15)	
CN165	1-564-505-11	PLUG, CONNECTOR 2P			*****	
CN208	1-564-510-11	PLUG, CONNECTOR 7P (KV-27V10/27V15/29V10C/29V10M)			*A-1306-462-A M BOARD, COMPLETE (KV-29V10C/29V10M)	
<DIODE>						
D170	8-719-110-76	DIODE RD33ESB1			C002	1-163-809-11 CERAMIC CHIP 0.047MF 10% 25V
D175	8-719-110-76	DIODE RD33ESB1 (KV-32V15)			C003	1-163-001-11 CERAMIC CHIP 220PF 10% 50V
<IC>						
IC172	8-759-932-67	IC BU4053BF			C005	1-163-001-11 CERAMIC CHIP 220PF 10% 50V
<COIL>						
L170	1-408-408-00	INDUCTOR	8.2UH		C006	1-163-001-11 CERAMIC CHIP 220PF 10% 50V
L171	1-408-408-00	INDUCTOR	8.2UH		C007	1-124-903-11 ELECT 1MF 20% 50V
L172	1-408-408-00	INDUCTOR	8.2UH		C008	1-163-001-11 CERAMIC CHIP 220PF 10% 50V
L173	1-408-408-00	INDUCTOR	8.2UH (KV-32V15)		C009	1-163-001-11 CERAMIC CHIP 220PF 10% 50V
<TRANSISTOR>						
Q172	8-729-216-22	TRANSISTOR 2SA1162-G (KV-32V15)			C010	1-163-001-11 CERAMIC CHIP 220PF 10% 50V
Q173	8-729-216-22	TRANSISTOR 2SA1162-G (KV-32V15)			C012	1-163-001-11 CERAMIC CHIP 220PF 10% 50V
<RESISTOR>						
R170	1-216-025-00	METAL GLAZE	100 5%	1/10W	C013	1-163-001-11 CERAMIC CHIP 220PF 10% 50V
			(KV-27V10/27V15/29V10C/29V10M)		C014	1-163-001-11 CERAMIC CHIP 220PF 10% 50V
R173	1-216-295-00	METAL GLAZE	0 5%	1/10W	C015	1-163-001-11 CERAMIC CHIP 220PF 10% 50V
			(KV-32V15)		C016	1-163-001-11 CERAMIC CHIP 220PF 10% 50V
R174	1-216-689-11	METAL GLAZE	39K 5%	1/10W	C017	1-163-001-11 CERAMIC CHIP 220PF 10% 50V
R175	1-215-900-11	METAL OXIDE	22K 5%	2W F	C018	1-163-001-11 CERAMIC CHIP 220PF 10% 50V
			(KV-32V15)		C019	1-163-001-11 CERAMIC CHIP 220PF 10% 50V
R176	1-216-295-00	METAL GLAZE	0 5%	1/10W	C021	1-163-001-11 CERAMIC CHIP 220PF 10% 50V
			(KV-27V10/27V15/29V10C/29V10M)		C022	1-163-001-11 CERAMIC CHIP 220PF 10% 50V
R177	1-215-900-11	METAL OXIDE	22K 5%	2W F	C023	1-163-001-11 CERAMIC CHIP 220PF 10% 50V
R179	1-216-065-00	METAL GLAZE	4.7K 5%	1/10W	C025	1-163-001-11 CERAMIC CHIP 220PF 10% 50V
R181	1-216-025-00	METAL GLAZE	100 5%	1/10W	C028	1-163-001-11 CERAMIC CHIP 220PF 10% 50V
			(KV-32V15)		C029	1-163-001-11 CERAMIC CHIP 220PF 10% 50V
R185	1-216-025-00	METAL GLAZE	100 5%	1/10W	C032	1-124-902-00 ELECT 0.47MF 20% 50V
			(KV-32V15)		C033	1-126-933-11 ELECT 100MF 20% 10V
R187	1-216-083-00	METAL GLAZE	27K 5%	1/10W	C034	1-163-001-11 CERAMIC CHIP 220PF 10% 50V (KV-27V10/27V15/32V15)
B188	1-216-689-11	METAL GLAZE	39K 5%	1/10W	C035	1-163-001-11 CERAMIC CHIP 220PF 10% 50V (KV-27V10/27V15/32V15)
R189	1-216-083-00	METAL GLAZE	27K 5%	1/10W	C041	1-163-009-11 CERAMIC CHIP 0.001MF 10% 50V
			(KV-32V15)		C043	1-163-159-00 CERAMIC CHIP 12PF 2% 50V
R190	1-216-065-00	METAL GLAZE	4.7K 5%	1/10W	C045	1-126-940-11 ELECT 330MF 20% 16V
R191	1-216-065-00	METAL GLAZE	4.7K 5%	1/10W	C047	1-104-896-11 CERAMIC CHIP 24PF 2% 50V
			(KV-32V15)		C048	1-126-964-11 ELECT 10MF 20% 50V
R193	1-216-037-00	METAL GLAZE	330 5%	1/10W	C049	1-163-001-11 CERAMIC CHIP 220PF 10% 50V
			(KV-32V15)		C050	1-163-001-11 CERAMIC CHIP 220PF 10% 50V
R196	1-216-037-00	METAL GLAZE	330 5%	1/10W	C051	1-163-031-11 CERAMIC CHIP 0.01MF 10% 50V (KV-32V15)
			(KV-32V15)		C052	1-163-001-11 CERAMIC CHIP 220PF 10% 50V
					C053	1-163-121-00 CERAMIC CHIP 150PF 5% 50V
					C054	1-163-125-00 CERAMIC CHIP 220PF 5% 50V
					C055	1-163-001-11 CERAMIC CHIP 220PF 10% 50V
					C056	1-163-001-11 CERAMIC CHIP 220PF 10% 50V
					C057	1-163-017-00 CERAMIC CHIP 0.0047MF 10% 50V
					C058	1-163-037-11 CERAMIC CHIP 0.022MF 10% 25V
					C059	1-163-001-11 CERAMIC CHIP 220PF 10% 50V
					C060	1-124-903-11 ELECT 1MF 20% 50V
					C062	1-126-964-11 ELECT 10MF 20% 50V (KV-27V10/27V15/32V15)
					C150	1-136-165-00 FILM 0.1MF 5% 50V (KV-27V10/27V15/32V15)

Les composants identifiés par une trame et une marque **A** sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark **A** are critical for safety.
Replace only with part number specified.



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK	
C151	1-136-175-00	FILM	0.068MF 5% 50V (KV-27V10/27V15/32V15)					
C152	1-126-964-11	ELECT	10MF 20% 50V (KV-27V10/27V15/32V15)				<CONNECTOR>	
C153	1-137-367-11	FILM	0.0033MF 5% 50V (KV-27V10/27V15/32V15)		CN129	*1-564-521-11	PLUG, CONNECTOR 6P	
C154	1-163-038-00	CERAMIC CHIP	0.1MF 25V (KV-27V10/27V15/32V15)		CN130	1-573-301-21	CONNECTOR, BOARD TO BOARD 20P	
C155	1-126-964-11	ELECT	10MF 20% 50V (KV-27V10/27V15/32V15)		CN131	*1-691-914-11	CONNECTOR, BOARD TO BOARD 15P	
C156	1-163-135-00	CERAMIC CHIP	560PF 5% 50V (KV-27V10/27V15/32V15)		CN134	*1-564-521-11	PLUG, CONNECTOR 6P (KV-27V10/27V15/32V15)	
C157	1-163-038-00	CERAMIC CHIP	0.1MF 25V (KV-27V10/27V15/32V15)		CN137	1-750-394-11	PIN, CONNECTOR (STAKING) 32P	
C158	1-124-903-11	ELECT	1MF 20% 50V (KV-27V10/27V15/32V15)		CN138	*1-564-512-11	PLUG, CONNECTOR 9P	
					CN163	*1-564-508-11	PLUG, CONNECTOR 5P (KV-27V10/27V15/32V15)	
					CN168	1-564-505-11	PLUG, CONNECTOR 2P	
							<DIODE>	
C160	1-124-903-11	ELECT	1MF 20% 50V		D001	8-719-404-46	DIODE MA110	
C201	1-163-017-00	CERAMIC CHIP	0.0047MF 10% 50V		D002	8-719-404-46	DIODE MA110	
C202	1-163-001-11	CERAMIC CHIP	220PF 10% 50V		D004	8-719-404-46	DIODE MA110 (KV-27V10/27V15/32V15)	
C203	1-163-989-11	CERAMIC CHIP	0.033MF 10% 25V		D005	8-713-300-57	DIODE 1T33	
C204	1-126-933-11	ELECT	100MF 20% 16V		D006	8-719-110-17	DIODE RD10ESB2	
C205	1-163-001-11	CERAMIC CHIP	220PF 10% 50V		D007	8-719-110-17	DIODE RD10ESB2	
C211	1-163-989-11	CERAMIC CHIP	0.033MF 10% 25V		D008	8-719-110-17	DIODE RD10ESB2	
C212	1-124-902-00	ELECT	0.47MF 20% 50V		D009	8-719-110-17	DIODE RD10ESB2	
C213	1-124-902-00	ELECT	0.47MF 20% 50V		D150	8-719-404-46	DIODE MA110 (KV-27V10/27V15/32V15)	
C214	1-163-017-00	CERAMIC CHIP	0.0047MF 10% 50V		D201	8-719-404-46	DIODE MA110	
C216	1-104-665-11	ELECT	100MF 20% 25V		D202	8-719-404-46	DIODE MA110	
C301	1-163-117-00	CERAMIC CHIP	100PF 5% 50V		D205	8-719-110-17	DIODE RD10ESB2	
C305	1-126-964-11	ELECT	10MF 20% 50V		D206	8-719-110-17	DIODE RD10ESB2	
C306	1-124-902-00	ELECT	0.47MF 20% 50V		D207	8-719-510-48	DIODE D1N20R (KV-27V10/27V15/32V15)	
C307	1-163-125-00	CERAMIC CHIP	220PF 5% 50V		D301	8-719-110-17	DIODE RD10ESB2	
C308	1-163-099-00	CERAMIC CHIP	18PF 5% 50V		D304	8-719-110-17	DIODE RD10ESB2	
C310	1-124-916-11	ELECT	22MF 20% 25V				<IC>	
C311	1-124-903-11	ELECT	1MF 20% 50V		IC101	8-752-851-01	IC CXF80424-079S	
C313	1-163-003-11	CERAMIC CHIP	330PF 10% 50V		IC102	8-759-168-37	IC ST24C01B1	
C315	1-126-964-11	ELECT	10MF 20% 50V (KV-27V10/27V15/32V15)		IC103	8-759-805-37	IC L78LR05D-MA	
C316	1-126-964-11	ELECT	10MF 20% 50V (KV-27V10/27V15/32V15)		IC150	8-759-084-28	IC MC144143P1 (KV-27V10/27V15/32V15)	
C317	1-126-964-11	ELECT	10MF 20% 50V (KV-27V10/27V15/32V15)		IC201	8-759-090-21	IC TDA8424	
C318	1-136-165-00	FILM	0.1MF 5% 50V		IC202	8-759-983-69	IC LM358PS	
C319	1-136-165-00	FILM	0.1MF 5% 50V		IC301	8-752-059-67	IC CXA1465AS	
C320	1-136-165-00	FILM	0.1MF 5% 50V				<COIL>	
C321	1-126-952-11	ELECT	1000MF 20% 16V		L001	1-410-470-11	INDUCTOR	10UH
C322	1-136-153-00	FILM	0.01MF 5% 50V		L002	1-408-414-00	INDUCTOR	27UH
C323	1-126-923-11	ELECT	220MF 20% 10V		L150	1-410-470-11	INDUCTOR	10UH (KV-27V10/27V15/32V15)
C324	1-163-003-11	CERAMIC CHIP	330PF 10% 50V				<TRANSISTOR>	
C325	1-163-037-11	CERAMIC CHIP	0.022MF 10% 25V		Q001	8-729-216-22	TRANSISTOR 2SA1162-G	
C326	1-136-169-00	FILM	0.22MF 5% 50V		Q004	8-729-216-22	TRANSISTOR 2SA1162-G	
C327	1-136-169-00	FILM	0.22MF 5% 50V		Q005	8-729-422-27	TRANSISTOR 2SD601A-Q	
C328	1-124-902-00	ELECT	0.47MF 20% 50V		Q151	8-729-422-27	TRANSISTOR 2SD601A-Q (KV-27V10/27V15/32V15)	
C329	1-124-903-11	ELECT	1MF 20% 50V		Q201	8-729-422-27	TRANSISTOR 2SD601A-Q	
C330	1-126-964-11	ELECT	10MF 20% 50V		Q301	8-729-216-22	TRANSISTOR 2SA1162-G	
C332	1-164-489-11	CERAMIC CHIP	0.22MF 10% 16V		Q302	8-729-216-22	TRANSISTOR 2SA1162-G	
C333	1-163-011-11	CERAMIC CHIP	0.0015MF 10% 50V		Q308	8-729-422-27	TRANSISTOR 2SD601A-Q	
C334	1-124-902-00	ELECT	0.47MF 20% 50V					
C335	1-163-001-11	CERAMIC CHIP	220PF 10% 50V					
C336	1-124-903-11	ELECT	1MF 20% 50V					
C337	1-124-902-00	ELECT	0.47MF 20% 50V					
C338	1-136-153-00	FILM	0.01MF 5% 50V					
C340	1-124-903-11	ELECT	1MF 20% 50V					
C341	1-163-005-11	CERAMIC CHIP	470PF 10% 50V					
C342	1-137-414-11	FILM	0.0047MF 10% 100V					

M

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<RES1STDR>							
JR200	1-216-295-00	METAL GLAZE	0 5% 1/10W	R063	1-216-033-00	METAL GLAZE	220 5% 1/10W (KV-27V10/27V15/32V15)
JR201	1-216-295-00	METAL GLAZE	■ 5% 1/10W	R064	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
JR202	1-216-295-00	METAL GLAZE	■ 5% 1/10W	R065	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R002	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R066	1-216-025-00	METAL GLAZE	100 5% 1/10W
R003	1-216-033-00	METAL GLAZE	220 5% 1/10W	R067	1-216-025-00	METAL GLAZE	100 5% 1/10W
R004	1-216-033-00	METAL GLAZE	220 5% 1/10W	R069	1-216-033-00	METAL GLAZE	220 5% 1/10W (KV-27V10/27V15/32V15)
R005	1-216-033-00	METAL GLAZE	220 5% 1/10W	R070	1-216-049-00	METAL GLAZE	1K 5% 1/10W (KV-27V10/27V15/32V15)
R006	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R071	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R007	1-216-033-00	METAL GLAZE	220 5% 1/10W	R074	1-216-295-00	METAL GLAZE	0 5% 1/10W
R008	1-216-033-00	METAL GLAZE	220 5% 1/10W	R075	1-216-295-00	METAL GLAZE	0 5% 1/10W
R009	1-216-033-00	METAL GLAZE	220 5% 1/10W	R076	1-216-295-00	METAL GLAZE	0 5% 1/10W
R011	1-216-033-00	METAL GLAZE	220 5% 1/10W	R078	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R012	1-216-033-00	METAL GLAZE	220 5% 1/10W	R079	1-216-295-00	METAL GLAZE	0 5% 1/10W
R013	1-216-033-00	METAL GLAZE	220 5% 1/10W	R080	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R016	1-216-033-00	METAL GLAZE	220 5% 1/10W	R082	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R017	1-216-033-00	METAL GLAZE	220 5% 1/10W	R083	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R018	1-216-033-00	METAL GLAZE	220 5% 1/10W	R086	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R019	1-216-033-00	METAL GLAZE	220 5% 1/10W	R087	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R020	1-216-033-00	METAL GLAZE	220 5% 1/10W	R091	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R021	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R092	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R022	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R093	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R023	1-216-033-00	METAL GLAZE	220 5% 1/10W	R150	1-216-097-00	METAL GLAZE	100K 5% 1/10W (KV-27V10/27V15/32V15)
R025	1-216-033-00	METAL GLAZE	220 5% 1/10W	R151	1-216-049-00	METAL GLAZE	1K 5% 1/10W (KV-27V10/27V15/32V15)
R026	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R152	1-216-049-00	METAL GLAZE	1K 5% 1/10W (KV-27V10/27V15/32V15)
R027	1-216-121-00	METAL GLAZE	1M 5% 1/10W	R153	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W (KV-27V10/27V15/32V15)
R028	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R154	1-216-041-00	METAL GLAZE	470 5% 1/10W (KV-27V10/27V15/32V15)
R029	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R155	1-216-049-00	METAL GLAZE	1K 5% 1/10W (KV-27V10/27V15/32V15)
R030	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R156	1-216-073-00	METAL GLAZE	10K 5% 1/10W (KV-27V10/27V15/32V15)
R031	1-216-033-00	METAL GLAZE	220 5% 1/10W	R157	1-216-073-00	METAL GLAZE	10K 5% 1/10W (KV-27V10/27V15/32V15)
R032	1-216-033-00	METAL GLAZE	220 5% 1/10W	R158	1-216-073-00	METAL GLAZE	10K 5% 1/10W (KV-27V10/27V15/32V15)
R033	1-216-033-00	METAL GLAZE	220 5% 1/10W	R159	1-216-049-00	METAL GLAZE	1K 5% 1/10W (KV-27V10/27V15/32V15)
R034	1-216-033-00	METAL GLAZE	220 5% 1/10W	R160	1-216-049-00	METAL GLAZE	1K 5% 1/10W (KV-27V10/27V15/32V15)
R035	1-216-033-00	METAL GLAZE	220 5% 1/10W	R161	1-216-049-00	METAL GLAZE	1K 5% 1/10W (KV-27V10/27V15/32V15)
R036	1-216-033-00	METAL GLAZE	220 5% 1/10W	R162	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W (KV-27V10/27V15/32V15)
R037	1-216-033-00	METAL GLAZE	220 5% 1/10W	R163	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W (KV-27V10/27V15/32V15)
R038	1-216-033-00	METAL GLAZE	220 5% 1/10W	R164	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W (KV-27V10/27V15/32V15)
R039	1-216-295-00	METAL GLAZE	0 5% 1/10W	R165	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W (KV-27V10/27V15/32V15)
R040	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R166	1-216-049-00	METAL GLAZE	1K 5% 1/10W (KV-27V10/27V15/32V15)
R041	1-216-033-00	METAL GLAZE	220 5% 1/10W	R167	1-216-049-00	METAL GLAZE	1K 5% 1/10W (KV-27V10/27V15/32V15)
R042	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R168	1-216-049-00	METAL GLAZE	1K 5% 1/10W (KV-27V10/27V15/32V15)
R043	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R169	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W (KV-27V10/27V15/32V15)
R044	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R170	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W (KV-27V10/27V15/32V15)
R045	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R171	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W (KV-27V10/27V15/32V15)
R046	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R172	1-216-073-00	METAL GLAZE	10K 5% 1/10W (KV-27V10/27V15/32V15)
R048	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R173	1-216-073-00	METAL GLAZE	10K 5% 1/10W (KV-27V10/27V15/32V15)
R049	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R174	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W (KV-27V10/27V15/32V15)
R050	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R175	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W (KV-27V10/27V15/32V15)
R051	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R176	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W (KV-27V10/27V15/32V15)
R052	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R177	1-216-049-00	METAL GLAZE	1K 5% 1/10W (KV-27V10/27V15/32V15)
R053	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R178	1-216-049-00	METAL GLAZE	1K 5% 1/10W (KV-27V10/27V15/32V15)
R054	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R179	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W (KV-27V10/27V15/32V15)
R055	1-216-033-00	METAL GLAZE	220 5% 1/10W (KV-27V10/27V15/32V15)	R180	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W (KV-27V10/27V15/32V15)
R056	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R181	1-216-049-00	METAL GLAZE	1K 5% 1/10W (KV-27V10/27V15/32V15)
R057	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R182	1-216-073-00	METAL GLAZE	10K 5% 1/10W (KV-27V10/27V15/32V15)
R058	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R183	1-216-073-00	METAL GLAZE	10K 5% 1/10W (KV-27V10/27V15/32V15)
R059	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R184	1-216-089-91	METAL GLAZE	47K 5% 1/10W (KV-27V10/27V15/32V15)
R060	1-216-079-00	METAL GLAZE	18K 5% 1/10W (KV-27V10/27V15/32V15)	R185	1-216-089-91	METAL GLAZE	47K 5% 1/10W (KV-27V10/27V15/32V15)
	1-216-295-00	METAL GLAZE	0 5% 1/10W (KV-29V10C/29V10M)	R186	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W (KV-27V10/27V15/32V15)
R062	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R187	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W (KV-27V10/27V15/32V15)
				R204	1-216-089-91	METAL GLAZE	47K 5% 1/10W (KV-27V10/27V15/32V15)
				R205	1-216-295-00	METAL GLAZE	0 5% 1/10W (KV-27V10/27V15/32V15)

The components identified by shading and mark are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et une marque sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101

M **C**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R206	1-216-295-00	METAL GLAZE	0 5% 1/10W	*A-1331-327-A	C BOARD, COMPLETE	*****	
R207	1-216-085-00	METAL GLAZE	33K 5% 1/10W			(KV-27V10/27V15/29V10C/29V10M)	
R208	1-216-089-91	METAL GLAZE	47K 5% 1/10W	*A-1331-351-A	C BOARD, COMPLETE (KV-32V15)	*****	
R209	1-216-085-00	METAL GLAZE	33K 5% 1/10W				
R210	1-216-089-91	METAL GLAZE	47K 5% 1/10W				
R211	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R212	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R213	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R218	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
R219	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
R220	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R222	1-216-089-91	METAL GLAZE	47K 5% 1/10W				
R223	1-216-045-00	METAL GLAZE	680 5% 1/10W				
R301	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R302	1-216-049-00	METAL GLAZE	1K 5% 1/10W				
R303	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
R304	1-216-039-00	METAL GLAZE	390 5% 1/10W				
R305	1-216-039-00	METAL GLAZE	390 5% 1/10W				
R306	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W				
R312	1-216-119-00	METAL GLAZE	820K 5% 1/10W				
R313	1-216-079-00	METAL GLAZE	18K 5% 1/10W				
R321	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R323	1-216-041-00	METAL GLAZE	470 5% 1/10W				
R324	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R327	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W				
R328	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R329	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R330	1-216-295-00	METAL GLAZE	■ 5% 1/10W				
R331	1-216-678-11	METAL CHIP	13K 0.50% 1/10W				
R332	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W				
R333	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R334	1-216-687-11	METAL CHIP	33K 0.50% 1/10W				
R335	1-216-121-00	METAL GLAZE	1M 5% 1/10W				
R336	1-216-295-00	METAL GLAZE	0 5% 1/10W				
R337	1-216-049-00	METAL GLAZE	1K 5% 1/10W				
R338	1-249-417-11	CARBON	1K 5% 1/4W F				
R339	1-216-049-00	METAL GLAZE	1K 5% 1/10W				
R340	1-216-077-00	METAL GLAZE	15K 5% 1/10W				
R341	1-216-085-00	METAL GLAZE	33K 5% 1/10W				
R342	1-216-295-00	METAL GLAZE	0 5% 1/10W				
R343	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W				
R344	1-216-043-00	METAL GLAZE	560 5% 1/10W				
R345	1-216-109-00	METAL GLAZE	330K 5% 1/10W				
R346	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W				
R347	1-249-409-11	CARBON	220 5% 1/4W F				
R348	1-216-097-00	METAL GLAZE	100K 5% 1/10W				
R349	1-216-089-91	METAL GLAZE	47K 5% 1/10W				
R351	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
R352	1-216-089-91	METAL GLAZE	47K 5% 1/10W				
R354	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R356	1-216-295-00	METAL GLAZE	0 5% 1/10W				
R374	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R375	1-216-033-00	METAL GLAZE	220 5% 1/10W				
<CRYSTAL>							
X001	1-579-917-21	VIBRATOR, CRYSTAL		<JACK>			
X301	1-567-505-11	OSCILLATOR, CRYSTAL		J701	A1-540-124-11	SOCKET, PICTURE TUBE	

<COIL>							
L701	1-410-478-11	INDUCTOR					
							47UH

C E (KV-32V15)

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<TRANSISTOR>							
Q711	8-729-326-11	TRANSISTOR 2SC2611		R774	1-249-437-11	CARBON	47K 5% 1/4W
Q712	8-729-119-78	TRANSISTOR 2SC2785-HFE (KV-32V15)		R775	1-249-417-11	CARBON	1K 5% 1/4W F
Q731	8-729-326-11	TRANSISTOR 2SC2611		R776	1-249-409-11	CARBON	220 5% 1/4W F
Q732	8-729-119-78	TRANSISTOR 2SC2785-HFE (KV-32V15)		R790	1-249-413-11	CARBON	470 5% 1/4W
Q751	8-729-326-11	TRANSISTOR 2SC2611		R791	1-249-412-11	CARBON	390 5% 1/4W
<VARIABLE RESISTOR>							
Q752	8-729-119-78	TRANSISTOR 2SC2785-HFE (KV-32V15)		RV702	1-230-641-11	RES. ADJ. METAL GLAZE 2.2M	
Q770	8-729-119-76	TRANSISTOR 2SA1175-HFE					
Q771	8-729-200-17	TRANSISTOR 2SA1091-0					
Q772	8-729-200-17	TRANSISTOR 2SA1091-0					
Q773	8-729-200-17	TRANSISTOR 2SA1091-0					
<RESISTOR>							
R700	1-247-739-11	CARBON	100 5% 1/2W				
R701	1-244-941-00	CARBON	680K 5% 1/2W				
R702	1-249-496-11	CARBON	100K 5% 1/2W				
R703	1-249-496-11	CARBON	100K 5% 1/2W				
R704	1-216-398-11	METAL OXIDE	5.6 5% 3W F				
R705	1-216-398-11	METAL OXIDE	5.6 5% 3W F				
R707	1-249-496-11	CARBON	100K 5% 1/2W (KV-32V15)				
R710	1-247-758-11	CARBON	3.3K 5% 1/2W				
R711	1-247-807-31	CARBON	100 5% 1/4W				
R712	1-215-924-71	METAL OXIDE	15K 5% 3W F				
R714	1-249-425-11	CARBON	4.7K 5% 1/4W				
R716	1-249-411-11	CARBON	330 5% 1/4W (KV-27V10/27V15/29V10C/29V10M)				
	1-249-417-11	CARBON	1K 5% 1/4W (KV-32V15)				
R717	1-249-393-11	CARBON	10 5% 1/4W				
R718	1-249-413-11	CARBON	470 5% 1/4W (KV-32V15)				
R730	1-247-758-11	CARBON	3.3K 5% 1/2W				
R731	1-247-807-31	CARBON	100 5% 1/4W				
R732	1-215-924-71	METAL OXIDE	15K 5% 3W F				
R734	1-249-425-11	CARBON	4.7K 5% 1/4W				
R736	1-249-411-11	CARBON	330 5% 1/4W				
R737	1-249-393-11	CARBON	10 5% 1/4W				
<CAPACITOR>							
C1501	1-126-103-11	ELECT	470MF 20% 16V				
C1502	1-137-372-11	FILM	0.022MF 5% 50V				
C1503	1-102-234-00	CERAMIC	270PF 10% 500V				
C1504	1-136-165-00	FILM	0.1MF 5% 50V				
C1505	1-124-907-11	ELECT	10MF 20% 50V				
C1507	1-124-907-11	ELECT	10MF 20% 50V				
C1509	1-136-165-00	FILM	0.1MF 5% 50V				
C1510	1-137-370-11	FILM	0.01MF 5% 50V				
C1516	1-136-165-00	FILM	0.1MF 5% 50V				
C1519	1-136-104-00	FILM	0.16MF 5% 200V				
C1522	1-124-360-00	ELECT	1000MF 20% 16V				
C1523	1-136-177-00	FILM	1MF 5% 50V				
C1524	1-124-927-11	ELECT	4.7MF 20% 50V				
C1529	1-124-907-11	ELECT	10MF 20% 50V				
C1530	1-124-907-11	ELECT	10MF 20% 50V				
C1532	1-124-927-11	ELECT	4.7MF 20% 50V				
C1533	1-126-233-11	ELECT	22MF 20% 25V				
C1542	1-124-477-11	ELECT	47MF 20% 16V				
C1550	1-136-756-11	FILM	0.24MF 5% 200V				
<CONNECTOR>							
CN122	1-573-299-21	CONNECTOR, BOARD TO BOARD 10P					
CN123	1-573-299-21	CONNECTOR, BOARD TO BOARD 10P					
DY-2	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P					
<DIODE>							
D1501	8-719-911-19	DIODE ISS119					
D1502	8-719-801-35	THYRISTOR SH0R3D42					
D1503	8-719-980-78	DIODE ERA85-006					
D1504	8-719-302-43	DIODE EL1Z					
D1505	8-719-911-19	DIODE ISS119					
D1506	8-719-911-19	DIODE ISS119					
D1507	8-719-911-19	DIODE ISS119					
D1508	8-719-110-17	DIODE RD10ESB2					
D1509	8-719-110-17	DIODE RD10ESB2					
D1510	8-719-911-19	DIODE ISS119					
D1513	8-719-302-43	DIODE EL1Z					
D1515	8-719-911-19	DIODE ISS119					
D1516	8-719-987-87	DIODE ERA85-009					
D1517	8-719-911-19	DIODE ISS119					

The components identified by shading and mark **A** are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame ■ une marque **A** sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101

E (KV-32V15) **D**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK				
<IC>											
IC1501	8-752-052-88	IC CXA1526P		R1578	I-249-423-11	CARBON	3.3K 5% 1/4W				
IC1502	8-759-701-59	IC NJM78M09FA		R1582	I-249-411-11	CARBON	330 5% 1/4W				
IC1504	8-759-135-80	IC UPC358C		R1583	I-249-421-11	CARBON	2.2K 5% 1/4W				
				R1585	I-249-441-11	CARBON	100K 5% 1/4W				
				R1586	I-247-891-00	CARBON	330K 5% 1/4W				
<COIL>											
L1502	1-459-592-11	COIL (WITH CORE) (PMC)		*A-1346-192-A	D BOARD, COMPLETE (KV-27V10/29V10M)						
L1504	1-459-474-11	COIL (WITH CORE)		*A-1346-199-A	D BOARD, COMPLETE (KV-29V10C)						
<TRANSISTOR>											
Q1501	8-729-119-78	TRANSISTOR 2SC2785-HFE		*A-1346-200-A	D BOARD, COMPLETE (KV-27V15)						
Q1502	8-729-140-96	TRANSISTOR 2SD774-34		*A-1346-201-A	D BOARD, COMPLETE (KV-32V15)						
Q1503	8-729-119-76	TRANSISTOR 2SA1175-HFE		4-382-854-11	SCREW (M3X10), P, SW (+)						
Q1506	8-729-119-78	TRANSISTOR 2SC2785-HFE		<CAPACITOR>							
Q1507	8-729-119-78	TRANSISTOR 2SC2785-HFE		C501	I-124-557-11	ELECT	1000MF 20% 25V				
Q1508	8-729-140-93	TRANSISTOR 2SB733-34		C502	I-162-131-11	CERAMIC	220PF 10% 2KV				
Q1509	8-729-140-93	TRANSISTOR 2SB733-34		C503	I-124-557-11	ELECT	1000MF 20% 25V				
Q1511	8-729-119-76	TRANSISTOR 2SA1175-HFE		C504	I-137-366-11	FILM	0.0022MF 5% 50V				
Q1514	8-729-209-15	TRANSISTOR 2SD2012		C505	I-124-916-11	ELECT	22MF 20% 25V				
Q1519	8-729-119-78	TRANSISTOR 2SC2785-HFE		C506	I-128-560-11	ELECT	22MF 20% 100V				
Q1520	8-729-119-78	TRANSISTOR 2SC2785-HFE		C507	I-123-947-00	ELECT	10MF 20% 160V				
<RESISTOR>											
R1501	1-249-409-11	CARBON	220 5% 1/4W	C508	I-129-898-00	FILM	0.0022MF 5% 630V				
R1502	1-249-409-11	CARBON	220 5% 1/4W	(KV-27V10/27V15/29V10C/29V10M)							
R1503	1-249-435-11	CARBON	33K 5% 1/4W	C511	I-123-024-21	ELECT	33MF 10% 160V				
R1504	1-249-429-11	CARBON	10K 5% 1/4W	C512	I-102-212-00	CERAMIC	820PF 10% 500V				
R1505	1-249-421-11	CARBON	2.2K 5% 1/4W	C513	I-102-212-00	CERAMIC	820PF 10% 500V				
R1506	1-249-423-11	CARBON	3.3K 5% 1/4W	C514	I-102-244-00	CERAMIC	220PF 10% 500V				
R1507	1-249-410-11	CARBON	270 5% 1/4W	C515	I-137-416-11	FILM	0.01MF 10% 100V				
R1508	1-249-437-11	CARBON	47K 5% 1/4W	C517	I-162-116-00	CERAMIC	680PF 10% 2KV				
R1509	1-249-429-11	CARBON	10K 5% 1/4W	C518	I-162-116-00	CERAMIC	680PF 10% 2KV				
R1510	1-215-461-00	METAL	47K 1% 1/4W	C519	A I-104-771-11	FILM	0.02MF 3% 2KV				
R1511	1-216-379-11	METAL OXIDE	6.8 5% 2W F	C520	A I-162-134-91	CERAMIC	470PF 10% 2KV				
R1513	1-249-423-11	CARBON	3.3K 5% 1/4W	C521	A I-136-316-51	FILM	0.056MF 5% 630V				
R1514	1-247-885-00	CARBON	180K 5% 1/4W	C522	I-106-383-00	NYLAR	0.047MF 99% 200V				
R1515	1-215-905-11	METAL OXIDE	10 5% 3W F	C523	I-102-002-00	CERAMIC	680PF 10% 500V				
R1519	1-249-417-11	CARBON	1K 5% 1/4W	C524	I-102-212-00	CERAMIC	820PF 10% 500V				
R1520	1-249-417-11	CARBON	1K 5% 1/4W	C525	I-124-902-00	ELECT	0.47MF 20% 50V				
R1522	1-249-417-11	CARBON	1K 5% 1/4W	C526	I-106-395-00	NYLAR	0.15MF 10% 200V				
R1527	1-249-417-11	CARBON	1K 5% 1/4W F	C527	I-124-341-00	ELECT	1MF 20% 200V				
R1528	1-249-438-11	CARBON	56K 5% 1/4W	C528	I-136-113-00	FILM	2MF 5% 200V				
R1529	1-249-434-11	CARBON	27K 5% 1/4W	C529	I-137-410-11	FILM	0.001MF 10% 100V				
R1530	1-249-432-11	CARBON	18K 5% 1/4W	C530	I-104-844-11	FILM	0.62MF 5% 200V				
R1533	1-249-427-11	CARBON	6.8K 5% 1/4W	C531	I-104-664-11	ELECT	47MF 20% 25V				
R1534	1-249-424-11	CARBON	3.9K 5% 1/4W	C532	I-136-165-00	FILM	0.1MF 5% 50V				
R1535	1-249-425-11	CARBON	4.7K 5% 1/4W	C533	I-124-927-11	ELECT	4.7MF 20% 50V				
R1536	1-215-857-11	METAL OXIDE	10 5% 1W F	C534	I-136-161-00	FILM	0.047MF 5% 50V				
R1537	1-249-404-00	CARBON	82 5% 1/4W	C535	I-126-969-11	ELECT	220MF 20% 50V				
R1538	1-216-379-11	METAL OXIDE	6.8 5% 2W F	C536	I-137-398-11	FILM	0.068MF 10% 100V				
R1541	1-249-441-11	CARBON	100K 5% 1/4W	C537	I-126-964-11	ELECT	10MF 20% 50V				
R1543	1-249-414-11	CARBON	560 5% 1/4W	C538	I-136-161-00	FILM	0.047MF 5% 50V				
R1546	1-215-885-00	METAL OXIDE	68 5% 2W F	C540	I-137-366-11	FILM	0.0022MF 5% 50V				
R1552	1-249-426-11	CARBON	5.6K 5% 1/4W	C541	I-137-366-11	FILM	0.0022MF 5% 50V				
R1554	1-249-393-11	CARBON	10 5% 1/4W	C542	I-130-481-00	FILM	0.0068MF 5% 50V				
R1556	1-249-438-11	CARBON	56K 5% 1/4W	C545	I-124-927-11	ELECT	4.7MF 20% 50V				
R1559	1-249-429-11	CARBON	10K 5% 1/4W	C547	I-164-079-11	CERAMIC	330PF 10% 50V				
R1564	1-249-435-11	CARBON	33K 5% 1/4W	C548	A I-162-116-91	CERAMIC	680PF 10% 2KV				
R1568	1-247-891-00	CARBON	330K 5% 1/4W	C550	I-106-387-00	NYLAR	0.068MF 10% 200V				
R1569	1-249-413-11	CARBON	470 5% 1/4W	C553	I-164-079-11	CERAMIC	330PF 10% 50V				

KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101

D

Les composants identifiés par une trame ■■■ une marque ▲ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK			REF. NO.	PART NO.	DESCRIPTION	REMARK		
C561	1-162-815-11	CERAMIC	47PF	5%	500V	C2215	1-136-169-00	FILM	0.22MF	5%	50V
C595	1-123-932-00	ELECT	4.7MF	20%	160V	C2216	1-126-941-11	ELECT	470MF	20%	25V
C598	1-124-342-00	ELECT	3.3MF	20%	160V	C2217	1-136-169-00	FILM	0.22MF	5%	50V
C600	1-126-964-11	ELECT	10MF	20%	50V	C2218	1-124-557-11	ELECT	1000MF	20%	25V
C601	▲ 1-136-311-51	FILM	0.47MF	20%	125V	C2219	1-124-557-11	ELECT	1000MF	20%	25V
			(KV-27V10/27V15/29V10M/32V15)			C2220	1-124-925-11	ELECT	2.2MF	20%	50V
	▲ 1-136-511-61	FILM	0.47MF	20%	300V						
			(KV-29V10C)								
C602	▲ 1-136-311-51	FILM	0.47MF	20%	125V						
			(KV-27V10/27V15/29V10M/32V15)								
C603	▲ 1-136-311-51	FILM	0.47MF	20%	125V						
			(KV-27V10/27V15/29V10M/32V15)								
C604	▲ 1-162-578-81	CERAMIC	0.0047MF	20%	400V						
C607	1-125-489-00	ELECT	560MF	20%	250V						
	1-125-495-11	ELECT	470MF	20%	200V						
			(KV-27V10/27V15/29V10M/32V15)								
C608	1-125-489-00	ELECT	560MF	20%	250V						
			(KV-29V10C)								
	1-125-495-11	ELECT	470MF	20%	200V						
			(KV-27V10/27V15/29V10M/32V15)								
C609	1-136-169-00	FILM	0.22MF	5%	50V						
C610	1-136-169-00	FILM	0.22MF	5%	50V						
C611	1-136-169-00	FILM	0.22MF	5%	50V						
C612	1-136-169-00	FILM	0.22MF	5%	50V						
C613	1-164-625-11	CERAMIC	680PF	10%	500V						
C614	1-164-625-11	CERAMIC	680PF	10%	500V						
C616	1-126-964-11	ELECT	10MF	20%	50V						
C617	1-126-953-11	ELECT	2200MF	20%	35V						
C618	1-124-557-11	ELECT	1000MF	20%	25V						
C619	1-126-952-11	ELECT	1000MF	20%	16V						
C620	1-164-644-11	CERAMIC	330PF	10%	500V						
C621	1-126-356-11	ELECT	220MF	20%	160V						
C623	1-162-117-00	CERAMIC	100PF	10%	500V						
			(KV-29V10C)								
C624	1-136-155-00	FILM	0.015MF	5%	50V						
C625	1-129-719-00	FILM	0.027MF	10%	400V						
C626	1-104-665-11	ELECT	100MF	20%	25V						
C628	1-161-740-00	CERAMIC	470PF	10%	400V						
			(KV-29V10C)								
C629	1-108-700-11	MYLAR	470PF	10%	400V						
			(KV-29V10C)								
C630	1-136-165-00	FILM	0.1MF	5%	50V						
C632	1-126-406-11	ELECT	2.2MF	20%	400V						
			(KV-29V10C)								
C633	1-126-933-11	ELECT	100MF	20%	16V						
			(KV-29V10C)								
C634	1-165-127-11	CERAMIC	470PF	10%	500V						
C635	1-124-126-00	ELECT	47MF	20%	16V						
C636	1-137-374-11	FILM	0.047MF	5%	50V						
C637	1-124-916-11	ELECT	22MF	20%	25V						
C639	1-161-740-00	CERAMIC	470PF	10%	400V						
			(KV-27V10/27V15/29V10M/32V15)								
C641	1-126-933-11	ELECT	100MF	20%	10V						
C642	1-137-217-11	FILM	0.01MF	5%	0						
			(KV-27V10/27V15/29V10M/32V15)								
C643	1-137-218-11	FILM	0.012MF	5%	0						
C645	1-102-125-00	CERAMIC	0.0047MF	10%	50V						
C646	1-126-933-11	ELECT	100MF	20%	16V						
C647	1-124-916-11	ELECT	22MF	20%	25V						
C684	1-124-667-11	ELECT	10MF	20%	50V						
C695	1-126-964-11	ELECT	10MF	20%	50V						
C2205	1-124-925-11	ELECT	2.2MF	20%	50V						
C2208	1-124-925-11	ELECT	2.2MF	20%	50V						
C2210	1-104-666-11	ELECT	220MF	20%	25V						
C2211	1-104-664-11	ELECT	47MF	20%	25V						
C2212	1-104-666-11	ELECT	220MF	20%	25V						
C2213	1-136-173-00	FILM	0.47MF	5%	50V						

The components identified by shading and mark  are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et une marque A sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101

D

- The components identified by ■ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

D

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK				
R603	1-249-419-11	CARBON	1.5K 5% 1/4W	R691	1-249-423-11	CARBON	3.3K 5% 1/4W				
R605	1-247-893-11	CARBON	390K 5% 1/4W	R692	1-216-341-11	METAL OXIDE	0.22 5% 1W F				
R606	1-247-893-11	CARBON	390K 5% 1/4W	R693	1-216-389-11	METAL OXIDE	1 5% 3W F				
R607	A 1-202-933-61	FUSIBLE	0.1 10% 1/2W F	R699	1-216-492-11	METAL OXIDE	82K 5% 3W F				
R608	1-215-860-11	METAL OXIDE	33 5% 1W F	R2209	1-249-427-11	CARBON	6.8K 5% 1/4W				
R609	1-216-369-00	METAL OXIDE	1 5% 2W F	R2210	1-249-435-11	CARBON	33K 5% 1/4W				
R610	1-216-369-00	METAL OXIDE	1 5% 2W F	R2211	1-249-427-11	CARBON	6.8K 5% 1/4W				
R611	1-216-492-11	METAL OXIDE	82K 5% 3W F	R2212	1-249-435-11	CARBON	33K 5% 1/4W				
R613	1-215-883-11	METAL OXIDE	33 5% 2W F	R2215	1-249-425-11	CARBON	4.7K 5% 1/4W				
R614	1-215-883-11	METAL OXIDE	33 5% 2W F	R2216	1-249-437-11	CARBON	47K 5% 1/4W				
R615	1-249-421-11	CARBON	2.2K 5% 1/4W	R2217	1-249-435-11	CARBON	33K 5% 1/4W				
R616	1-249-417-11	CARBON	1K 5% 1/4W	R2218	1-249-441-11	CARBON	100K 5% 1/4W				
R617	1-249-377-11	CARBON	0.47 5% 1/4W F	R2219	1-249-413-11	CARBON	470 5% 1/4W				
R618	1-249-377-11	CARBON	0.47 5% 1/4W F	R2220	1-249-430-11	CARBON	12K 5% 1/4W				
R619	1-249-377-11	CARBON	0.47 5% 1/4W F	R2221	1-249-430-11	CARBON	12K 5% 1/4W				
R621	1-249-377-11	CARBON	0.47 5% 1/4W F	R2222	1-249-398-11	CARBON	27 5% 1/4W				
R622	1-249-377-11	CARBON	0.47 5% 1/4W F	R2223	1-249-418-11	CARBON	1.2K 5% 1/4W				
R623	1-249-377-11	CARBON	0.47 5% 1/4W F	R2224	1-249-418-11	CARBON	1.2K 5% 1/4W				
R624	1-249-377-11	CARBON	0.47 5% 1/4W F	R2225	1-249-398-11	CARBON	27 5% 1/4W				
R625	1-249-377-11	CARBON	0.47 5% 1/4W F	R2226	1-249-385-11	CARBON	2.2 5% 1/4W F				
R627	1-249-377-11	CARBON	0.47 5% 1/4W F	R2227	1-249-385-11	CARBON	2.2 5% 1/4W F				
R628	1-249-377-11	CARBON	0.47 5% 1/4W F	R2228	1-249-421-11	CARBON	2.2K 5% 1/4W				
R629	1-249-388-11	CARBON	3.9 5% 1/4W F	R2229	1-249-421-11	CARBON	2.2K 5% 1/4W				
R630	1-215-857-11	METAL OXIDE	10 5% 1W F	<RELAY>							
R632	1-249-417-11	CARBON	1K 5% 1/4W F	RY601	A 1-515-684-31	RELAY					
R633	1-249-405-11	CARBON	100 5% 1/4W F	RY602	1-515-684-31	RELAY					
R635	1-249-413-11	CARBON	470 5% 1/4W F	<SWITCH>							
R636	1-249-383-11	CARBON	1.5 5% 1/4W F	S501	1-572-707-11	SWITCH, LEVER					
R637	1-249-421-11	CARBON	2.2K 5% 1/4W	S502	1-572-707-11	SWITCH, LEVER					
R638	1-249-423-11	CARBON	3.3K 5% 1/4W	<TRANSFORMER>							
R639	1-249-423-11	CARBON	3.3K 5% 1/4W	T501	A 1-453-416-11	TRANSFORMER ASSY, FLYBACK (NX-2604A3)					
R640	A 1-202-893-91	SOLID	8.2M 20% 1/2W	T502	A 1-437-195-14	TRANSFORMER, HORIZONTAL DRIVE					
R641	1-249-455-11	CARBON	4.7K 5% 1/4W F (KV-29V10C)	T503	A 1-424-545-22	TRANSFORMER, FERRITE (PMT)					
R642	1-249-451-11	CARBON	2.2K 5% 1/4W F (KV-29V10C)	T601	A 1-423-593-11	TRANSFORMER, LINE FILTER (LFT)					
R643	1-216-379-11	METAL OXIDE	6.8 5% 2W F	T602	A 1-424-220-21	TRANSFORMER, LINE FILTER					
R644	A 1-212-853-61	FUSIBLE	6.8 5% 1/4W F	T603	A 1-423-563-11	TRANSFORMER, CONVERTER DRIVE					
R645	1-249-377-11	CARBON	0.47 5% 1/4W F	T604	A 1-423-615-11	TRANSFORMER, CONVERTER (PIT)					
R646	1-249-429-11	CARBON	10K 5% 1/4W	T605	A 1-423-582-21	TRANSFORMER, FERRITE (SBT) (KV-27V10/29V10C/29V10M)					
R647	1-249-433-11	CARBON	22K 5% 1/4W	A 1-426-669-11	TRANSFORMER, CONVERTER (SBT) (KV-27V15/32V15)						
R648	1-249-414-11	CARBON	560 5% 1/4W	<THERMISTOR>							
R649	1-216-431-11	METAL OXIDE	560 5% 1W F	THP601	A 1-809-827-21	THERMISTOR, POSITIVE (KV-29V10C)					
R650	1-249-405-11	CARBON	100 5% 1/4W F	A 1-809-539-21	THERMISTOR, POSITIVE (KV-27V10/27V15/29V10M/32V15)						
R653	1-249-381-11	CARBON	1 5% 1/4W	<VARISTOR>							
R654	1-216-385-11	METAL OXIDE	0.47 5% 3W F	VDR601	1-807-288-11	VARISTOR					
R655	1-249-417-11	CARBON	1K 5% 1/4W F	VDR602	1-810-053-11	VARISTOR					
R656	1-249-381-11	CARBON	1 5% 1/4W	VDR603	1-810-053-11	VARISTOR					
R657	1-249-417-11	CARBON	1K 5% 1/4W	*****							
R658	1-249-389-11	CARBON	4.7 5% 1/4W F								
R659	1-247-883-00	CARBON	150K 5% 1/4W								
R660	1-249-433-11	CARBON	22K 5% 1/4W								
R661	1-249-406-11	CARBON	120 5% 1/4W								
R663	1-247-737-11	CARBON	68 5% 1/2W F								
R683	1-205-998-11	WIREWOUND	1 5% 1/4W F (KV-29V10C)								
R684	1-205-998-11	WIREWOUND	1 5% 1/4W F								
R687	1-216-359-00	METAL OXIDE	6.8 5% 1W F (KV-27V10/27V15/29V10M/32V15)								
R688	1-215-861-00	METAL OXIDE	47 5% 1W								
R690	1-249-423-11	CARBON	3.3K 5% 1/4W								

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Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark **A** are critical for safety.
Replace only with part number specified.

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KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101

H L Z (KV-27V15/32V15)

REF. NO. PART NO.	DESCRIPTION	REMARK	REF. NO. PART NO.	DESCRIPTION	REMARK
*1-646-717-11	H BOARD *****		S1007 I-692-431-21	SWITCH, TACTILE	
	<CAPACITOR>			*****	
C1001	1-124-248-00	ELECT	22MF	20%	25V
C1002	1-126-160-11	ELECT	1MF	20%	50V
C1003	1-126-160-11	ELECT	1MF	20%	50V
C1004	1-124-584-00	ELECT	100MF	20%	10V
C1005	1-164-005-11	CERAMIC CHIP	0.47MF		25V
	<CONNECTOR>			<CONNECTOR>	
CN154	*1-564-520-11	PLUG, CONNECTOR	5P		
CN155	1-564-524-11	PLUG, CONNECTOR	9P		
CN156	*1-564-518-11	PLUG, CONNECTOR	3P		
	<DIODE>			<IC>	
D1004	1-810-039-31	LED UNIT		IC1903	8-759-189-86 IC IS455J
	<IC>			<RESISTOR>	
IC1001	8-741-100-62	IC SBX1618-51		R1901	1-216-133-00 METAL GLAZE 3.3M 5% 1/10W
	<JACK>			R1902	1-216-025-00 METAL GLAZE 100 5% 1/10W
J1001	1-695-585-11	JACK BLOCK, PIN (L TYPE) 3P			*****
	<TRANSISTOR>			A-1390-411-A	Z BOARD, COMPLETE (KV-27V15/32V15)
Q1001	8-729-216-22	TRANSISTOR	2SA1162-G		*****
Q1002	8-729-422-27	TRANSISTOR	2SD601A-Q		
Q1003	8-729-422-27	TRANSISTOR	2SD601A-Q		
	<RESISTOR>			C901	1-124-903-11 ELECT 1MF 20% 50V
R1001	1-247-804-11	CARBON	75	5%	1/4W
R1002	1-249-425-11	CARBON	4.7K	5%	1/4W
R1003	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R1004	1-249-425-11	CARBON	4.7K	5%	1/4W
R1005	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R1007	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1008	1-216-025-00	METAL GLAZE	100	5%	1/10W
R1009	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1010	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R1011	1-216-025-00	METAL GLAZE	100	5%	1/10W
R1012	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R1014	1-216-047-00	METAL GLAZE	820	5%	1/10W
R1015	1-216-033-00	METAL GLAZE	220	5%	1/10W
R1016	1-216-033-00	METAL GLAZE	220	5%	1/10W
R1017	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R1018	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R1019	1-216-025-00	METAL GLAZE	100	5%	1/10W
R1021	1-216-045-00	METAL GLAZE	680	5%	1/10W
	<SWITCH>			D901	8-719-121-24 DIODE RD9.1ESL
S1001	1-692-431-21	SWITCH, TACTILE		D902	8-719-404-46 DIODE MA110
S1002	1-692-431-21	SWITCH, TACTILE		D903	8-719-404-46 DIODE MA110
S1003	1-692-431-21	SWITCH, TACTILE		D904	8-719-109-93 DIODE RD6.2ESB2
S1004	1-692-431-21	SWITCH, TACTILE		D905	8-719-109-66 DIODE RD3.3ESB2
S1005	1-692-431-21	SWITCH, TACTILE		D906	8-719-121-24 DIODE RD9.1ESL
S1006	1-692-431-21	SWITCH, TACTILE		D907	8-719-404-46 DIODE MA110
	<JACK>			D908	8-719-404-46 DIODE MA110
J901	1-764-873-11	JACK		D909	8-719-404-46 DIODE MA110
J902	1-764-874-11	JACK		D910	8-719-404-46 DIODE MA110
	<TRANSISTOR>			D911	8-719-404-46 DIODE MA110
				D912	8-719-404-46 DIODE MA110
				D920	8-719-404-46 DIODE MA110
				Q901	8-729-422-27 TRANSISTOR 2SD601A-Q

Z (KV-27V15/32V15)

UA

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
Q902	8-729-216-22	TRANSISTOR 2SA1162-G		C408	1-124-916-11	ELECT	22MF 20% 25V
Q903	8-729-216-22	TRANSISTOR 2SA1162-G		C409	1-124-903-11	ELECT	1MF 20% 50V
Q904	8-729-422-27	TRANSISTOR 2SD601A-Q		C410	1-124-903-11	ELECT	1MF 20% 50V
Q905	8-729-422-27	TRANSISTOR 2SD601A-Q		C411	1-104-665-11	ELECT	100MF 20% 50V (KV-27V10/29V10C/29V10M)
Q906	8-729-422-27	TRANSISTOR 2SD601A-Q					
Q907	8-729-216-22	TRANSISTOR 2SA1162-G		C412	1-124-916-11	ELECT	22MF 20% 25V
Q908	8-729-216-22	TRANSISTOR 2SA1162-G		C413	1-126-964-11	ELECT	10MF 20% 50V
Q909	8-729-216-22	TRANSISTOR 2SA1162-G		C414	1-124-499-11	ELECT	1MF 20% 50V
Q910	8-729-422-27	TRANSISTOR 2SD601A-Q		C415	1-124-499-11	ELECT	1MF 20% 50V
Q911	8-729-140-93	TRANSISTOR 2SB733-34		C416	1-126-964-11	ELECT	10MF 20% 50V
Q912	8-729-216-22	TRANSISTOR 2SA1162-G		C417	1-124-902-00	ELECT	0.47MF 20% 50V
	<RESISTOR>			C418	1-124-902-00	ELECT	0.47MF 20% 50V
JR901	1-216-295-00	METAL GLAZE 0 5%	1/10W	C419	1-124-126-00	ELECT	47MF 20% 16V
JR902	1-216-295-00	METAL GLAZE 0 5%	1/10W	C420	1-163-031-11	CERAMIC CHIP 0.01MF	50V
JR903	1-216-295-00	METAL GLAZE 0 5%	1/10W	C421	1-124-902-00	ELECT	0.47MF 20% 50V (KV-27V10/29V10C/29V10M)
JR907	1-216-295-00	METAL GLAZE 0 5%	1/10W				
R901	1-249-405-11	CARBON 100 5%	1/4W F	C422	1-124-916-11	ELECT	22MF 20% 25V
R902	1-216-033-00	METAL GLAZE 220 5%	1/10W	C423	1-104-663-11	ELECT	33MF 20% 25V
R903	1-216-073-00	METAL GLAZE 10K 5%	1/10W	C424	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
R904	1-216-105-00	METAL GLAZE 220K 5%	1/10W				(KV-32V15)
R905	1-216-105-00	METAL GLAZE 220K 5%	1/10W	C425	1-124-126-00	ELECT	47MF 20% 16V
R906	1-216-089-91	METAL GLAZE 47K 5%	1/10W	C426	1-163-117-00	CERAMIC CHIP 100PF	50V
R907	1-216-089-91	METAL GLAZE 47K 5%	1/10W				(KV-32V15)
R908	1-216-005-00	METAL GLAZE 15 5%	1/10W	C427	1-126-933-11	ELECT	100MF 20% 16V
R909	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W				(KV-32V15)
R910	1-216-097-00	METAL GLAZE 100K 5%	1/10W	C428	1-124-097-00	METAL GLAZE 100K 5%	1/10W
R911	1-216-105-00	METAL GLAZE 220K 5%	1/10W				(KV-32V15)
R912	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W				
R913	1-216-101-00	METAL GLAZE 150K 5%	1/10W				
R914	1-216-089-91	METAL GLAZE 47K 5%	1/10W				
R915	1-216-089-91	METAL GLAZE 47K 5%	1/10W				
R916	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W				
R917	1-216-097-00	METAL GLAZE 100K 5%	1/10W				
R918	1-216-105-00	METAL GLAZE 220K 5%	1/10W				
R919	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W				
R921	1-216-089-91	METAL GLAZE 47K 5%	1/10W				
R922	1-216-073-00	METAL GLAZE 10K 5%	1/10W				
R923	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W				
R924	1-216-073-00	METAL GLAZE 10K 5%	1/10W				
R925	1-216-041-00	METAL GLAZE 470 5%	1/10W				
R926	1-216-025-00	METAL GLAZE 100 5%	1/10W				
R927	1-216-097-00	METAL GLAZE 100K 5%	1/10W				
R928	1-216-097-00	METAL GLAZE 100K 5%	1/10W				
R929	1-249-405-11	CARBON 100 5%	1/4W F				
R935	1-216-073-00	METAL GLAZE 10K 5%	1/10W				
R936	1-216-089-91	METAL GLAZE 47K 5%	1/10W				

*A-1394-527-A UA BOARD, COMPLETE(KV-27V15)				<DIODE>			
*****				D401	8-719-110-17	DIODE RD10ESB2	
*A-1394-529-A UA BOARD, COMPLETE(KV-32V15)				D402	8-719-110-17	DIODE RD10ESB2	
*****				D403	8-719-110-17	DIODE RD10ESB2	
*A-1394-552-A UA BOARD, COMPLETE				D404	8-719-110-17	DIODE RD10ESB2	
*****				D405	8-719-110-17	DIODE RD10ESB2	
(KV-27V10/29V10C/29V10M)				D408	8-719-110-17	DIODE RD10ESB2	
				D409	8-719-110-17	DIODE RD10ESB2	
<CAPACITOR>				D410	8-719-110-17	DIODE RD10ESB2	
C401	1-163-031-11	CERAMIC CHIP 0.01MF	50V	D411	8-719-110-17	DIODE RD10ESB2	
C402	1-124-916-11	ELECT 22MF	20% 25V	D429	8-719-110-17	DIDDE RD10ESB2	
C405	1-124-916-11	ELECT 22MF	20% 25V				
C406	1-124-903-11	ELECT 1MF	20% 50V	D430	8-719-110-17	DIODE RD10ESB2	
C407	1-124-903-11	ELECT 1MF	20% 50V	D431	8-719-110-17	DIODE RD10ESB2	

UA

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
D436	8-719-110-17	DIODE RD10ESB2 (KV-27V15/32V15)		R401	1-247-804-11	CARBON	75 5% 1/4W
D437	8-719-110-17	DIODE RD10ESB2 (KV-27V15/32V15)		R402	1-216-113-00	METAL GLAZE	470K 5% 1/10W
<IC>							
IC401	8-759-637-10	IC M52470AP (KV-27V10/29V10C/29V10M)		R403	1-216-113-00	METAL GLAZE	470K 5% 1/10W
IC402	8-752-067-28	IC CXA1545AS (KV-27V15/32V15)		R404	1-247-804-11	CARBON	75 5% 1/4W
IC403	8-759-088-00	IC MM1114XFF (KV-27V10/29V10C/29V10M)		R405	1-216-113-00	METAL GLAZE	470K 5% 1/10W
IC404	8-759-164-18	IC MM1118XFF (KV-27V10/20V10C/29V10M)		R406	1-216-113-00	METAL GLAZE	470K 5% 1/10W
<JACK>							
J401	1-750-515-11	TERMINAL BLOCK, S 3P		R407	1-247-804-11	CARBON	75 5% 1/4W
J402	1-750-517-11	JACK BLOCK, PIN 3P		R408	1-216-113-00	METAL GLAZE	470K 5% 1/10W
J404	1-750-516-11	JACK BLOCK, PIN 2P		R409	1-216-113-00	METAL GLAZE	470K 5% 1/10W
<COIL>							
L401	1-410-473-11	INDUCTOR	18UH (KV-27V15/32V15)	R410	1-249-425-11	CARBON	4.7K 5% 1/4W
L403	1-410-476-11	INDUCTOR	33UH (KV-27V15/32V15)	R411	1-249-425-11	CARBON	4.7K 5% 1/4W
L404	1-410-669-31	INDUCTOR	33UH (KV-27V15/32V15)	R412	1-249-425-11	CARBON	4.7K 5% 1/4W
<TRANSISTOR>							
Q401	8-729-422-27	TRANSISTOR 2SD601A-Q		R413	1-249-425-11	CARBON	4.7K 5% 1/4W
Q405	8-729-216-22	TRANSISTOR 2SA1162-G		R414	1-247-804-11	CARBON	75 5% 1/4W
Q406	8-729-216-22	TRANSISTOR 2SA1162-G		R415	1-249-425-11	CARBON	4.7K 5% 1/4W
Q410	8-729-422-27	TRANSISTOR 2SD601A-Q (KV-32V15)		R416	1-216-647-11	METAL CHIP	680 0.50% 1/10W
Q415	8-729-422-27	TRANSISTOR 2SD601A-Q (KV-32V15)		R417	1-216-645-11	METAL CHIP	560 0.50% 1/10W
Q416	8-729-216-22	TRANSISTOR 2SA1162-G (KV-32V15)		R418	1-216-025-00	METAL GLAZE	100 5% 1/10W (KV-27V10/29V10C/29V10M)
Q417	8-729-216-22	TRANSISTOR 2SA1162-G (KV-32V15)		R421	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
Q418	8-729-216-22	TRANSISTOR 2SA1162-G (KV-32V15)		R425	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
<RESISTOR>							
JR402	1-216-295-00	METAL GLAZE	0 5% 1/10W	R431	1-216-045-00	METAL GLAZE	680 5% 1/10W (KV-27V10/29V10C/29V10M)
JR408	1-216-295-00	METAL GLAZE	0 5% 1/10W		1-216-049-00	METAL GLAZE	1K 5% 1/10W (KV-27V15/32V15)
JR409	1-216-295-00	METAL GLAZE	0 5% 1/10W (KV-27V10/29V10C/29V10M)	R432	1-216-045-00	METAL GLAZE	680 5% 1/10W (KV-27V10/29V10C/29V10M)
JR410	1-216-295-00	METAL GLAZE	0 5% 1/10W		1-216-295-00	METAL GLAZE	0 5% 1/10W (KV-27V15/32V15)
JR411	1-216-295-00	METAL GLAZE	0 5% 1/10W	R434	1-216-045-00	METAL GLAZE	680 5% 1/10W (KV-27V10/29V10C/29V10M)
JR412	1-216-295-00	METAL GLAZE	0 5% 1/10W		1-216-049-00	METAL GLAZE	1K 5% 1/10W (KV-27V15/32V15)
JR415	1-216-295-00	METAL GLAZE	0 5% 1/10W	R435	1-216-045-00	METAL GLAZE	680 5% 1/10W (KV-27V10/29V10C/29V10M)
JR416	1-216-295-00	METAL GLAZE	0 5% 1/10W		1-216-295-00	METAL GLAZE	0 5% 1/10W (KV-27V15/32V15)
JR418	1-216-295-00	METAL GLAZE	0 5% 1/10W	R439	1-216-049-00	METAL GLAZE	1K 5% 1/10W
JR419	1-216-295-00	METAL GLAZE	0 5% 1/10W	R440	1-216-025-00	METAL GLAZE	100 5% 1/10W (KV-27V10/29V10C/29V10M)
JR422	1-216-295-00	METAL GLAZE	0 5% 1/10W	R441	1-216-049-00	METAL GLAZE	1K 5% 1/10W
JR423	1-216-295-00	METAL GLAZE	0 5% 1/10W (KV-27V10/29V10C/29V10M)	R442	1-216-025-00	METAL GLAZE	100 5% 1/10W (KV-27V10/29V10C/29V10M)
JR424	1-216-295-00	METAL GLAZE	0 5% 1/10W (KV-27V10/29V10C/29V10M)	R443	1-216-025-00	METAL GLAZE	100 5% 1/10W (KV-27V10/29V10C/29V10M)
JR428	1-216-295-00	METAL GLAZE	0 5% 1/10W	R444	1-216-095-00	METAL GLAZE	82K 5% 1/10W
JR429	1-216-295-00	METAL GLAZE	0 5% 1/10W	R445	1-216-073-00	METAL GLAZE	10K 5% 1/10W (KV-27V15/32V15)
JR430	1-216-295-00	METAL GLAZE	0 5% 1/10W	R446	1-216-073-00	METAL GLAZE	10K 5% 1/10W (KV-27V15/32V15)
JR431	1-216-295-00	METAL GLAZE	0 5% 1/10W	R450	1-216-025-00	METAL GLAZE	100 5% 1/10W (KV-27V10/29V10C/29V10M)
JR434	1-216-295-00	METAL GLAZE	0 5% 1/10W		1-216-643-11	METAL CHIP	470 0.50% 1/10W (KV-27V15/32V15)
JR435	1-216-295-00	METAL GLAZE	0 5% 1/10W (KV-27V10/29V10C/29V10M)	R451	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W (KV-27V15/32V15)
JR498	1-216-295-00	METAL GLAZE	0 5% 1/10W	R452	1-216-025-00	METAL GLAZE	100 5% 1/10W (KV-32V15)
JR499	1-216-295-00	METAL GLAZE	0 5% 1/10W	R453	1-216-645-11	METAL CHIP	560 0.50% 1/10W (KV-32V15)
JR901	1-216-295-00	METAL GLAZE	0 5% 1/10W	R454	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W (KV-27V10/29V10C/29V10M)
JW454	1-249-429-11	CARBON	10K 5% 1/4W (KV-27V10/29V10C/29V10M)		1-216-025-00	METAL GLAZE	100 5% 1/10W (KV-27V10/29V10C/29V10M)
JW456	1-249-429-11	CARBON	10K 5% 1/4W (KV-27V10/29V10C/29V10M)	R455	1-216-025-00	METAL GLAZE	100 5% 1/10W (KV-27V10/29V10C/29V10M)

KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101

Les composants identifiés par une trame et une marque **▲** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark **▲** are critical for safety. Replace only with part number specified.

UA

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK		
	1-216-295-00	METAL GLAZE	0 5% 1/10W (KV-27V15/32V15)	V901 ▲ 8-733-723-05	PICTURE TUBE (A80JYV50X) (KV-32V15)				
R456	1-216-041-00	METAL GLAZE	470 5% 1/10W (KV-27V15/32V15)	▲ 8-733-848-05	PICTURE TUBE (A68K2J50X) (KV-27V10/27V15/29V10C/29V10M)				
R457	1-216-033-00	METAL GLAZE	220 5% 1/10W (KV-27V15/32V15)	*****					
R458	1-216-033-00	METAL GLAZE	220 5% 1/10W (KV-27V15/32V15)	ACCESSORIES AND PACKING MATERIALS					
R459	1-216-081-00	METAL GLAZE	22K 5% 1/10W (KV-32V15)	1-467-626-11	MOUSE, INTERIJENT CABLE (RM-CM101) (KV-27V15/32V15)				
R460	1-216-037-00	METAL GLAZE	330 5% 1/10W (KV-32V15)	1-569-007-11	ADAPTER, CONVERSION 2P (KV-29V10C)				
R461	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W (KV-32V15)	3-758-286-21	MANUAL, INSTRUCTION (ENGLISH) (KV-27V10/29V10M)				
R462	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W (KV-32V15)	3-758-286-31	MANUAL, INSTRUCTION (FRENCH) (KV-27V10(CND))				
R463	1-216-045-00	METAL GLAZE	680 5% 1/10W (KV-32V15)	3-758-286-41	MANUAL, INSTRUCTION (SPANISH) (KV-29V10M)				
R464	1-216-045-00	METAL GLAZE	680 5% 1/10W (KV-32V15)	3-758-287-21	MANUAL, INSTRUCTION, CABLE MOUSE (KV-27V15/32V15)				
R476	1-216-081-00	METAL GLAZE	22K 5% 1/10W (KV-32V15)	3-758-287-31	MANUAL, INSTRUCTION, CABLE MOUSE (KV-27V15(CND)/32V15(CND))				
R478	1-216-041-00	METAL GLAZE	470 5% 1/10W (KV-27V15/32V15)	3-758-287-41	MANUAL, INSTRUCTION, CABLE MOUSE (KV-27V15(US)/32V15(US))				
R479	1-216-081-00	METAL GLAZE	22K 5% 1/10W (KV-32V15)	3-758-289-21	MANUAL, INSTRUCTION (ENGLISH) (KV-27V15/32V15)				
R480	1-216-081-00	METAL GLAZE	22K 5% 1/10W (KV-32V15)	3-758-289-31	MANUAL, INSTRUCTION (FRENCH) (KV-27V15(CND)/32V15(CND))				
R481	1-216-081-00	METAL GLAZE	22K 5% 1/10W (KV-32V15)	3-758-289-41	MANUAL, INSTRUCTION (SPANISH) (KV-27V15(US)/32V15(US))				
R482	1-249-417-11	CARBON	1K 5% 1/4W	3-758-336-41	MANUAL, INSTRUCTION (KV-29V10C)				
R483	1-249-417-11	CARBON	1K 5% 1/4W	3-758-336-51	MANUAL, INSTRUCTION (KV-29V10C)				
R488	1-216-081-00	METAL GLAZE	22K 5% 1/10W (KV-32V15)	4-043-736-01	FILTER, MOUSE (KV-27V15/32V15)				
R489	1-216-081-00	METAL GLAZE	22K 5% 1/10W (KV-32V15)	4-043-737-01	HOLDER, FILTER (KV-27V15/32V15)				
R490	1-216-295-00	METAL GLAZE	0 5% 1/10W	*4-041-255-01	BAG, PROTECTION (KV-27V10/27V15/29V10C/29V10M)				
R491	1-216-295-00	METAL GLAZE	0 5% 1/10W	*4-041-259-01	BAG, PROTECTION (KV-32V15)				
R492	1-216-295-00	METAL GLAZE	0 5% 1/10W	*4-043-483-01	INDIVIDUAL CARTON (KV-27V10/27V15/29V10C/29V10M)				
R438	1-216-081-00	METAL GLAZE	22K 5% 1/10W (KV-27V15/32V15)	*4-043-484-01	CUSHION (UPPER) (ASSY) (KV-27V10/27V15/29V10C/29V10M)				

MISCELLANEOUS									

▲ 1-402-952-12		COIL, DEMAGNETIZATION (KV-32V15)		REMOTE COMMANDER					
▲ 1-406-726-22		COIL, DEMAGNETIZATION (KV-27V10/27V15/29V10M)		1-467-060-13	REMOTE COMMANDER (RM-Y117) (KV-27V10/29V10C/29V10M)				
▲ 1-406-726-41		COIL, DEMAGNETIZATION (KV-29V10C)		9-903-826-01	COVER, BATTERY (FOR RM-Y117) (KV-27V10/29V10C/29V10M)				
1-417-178-11		SELECTOR, ANTENNA (AS-2) (KV-32V15)		1-467-621-11	REMOTE COMMANDER (RM-Y121) (KV-27V15/32V15)				
1-504-524-11		SPEAKER (8CM)		9-907-089-01	COVER, BATTERY (FOR RM-Y121) (KV-27V15/32V15)				
1-569-007-11		ADAPTER, CONVERSION 2P (KV-29V10C)							
1-573-657-11		PLAUG, F-PIN (KV-27V10/27V15/29V10C/29V10M)							
▲ 1-751-056-11		CORD, POWER (WITH CONNECTOR) 6A/250V (KV-29V10C)							
▲ 1-751-059-11		CORD, POWER (WITH CONNECTOR) 10A/125V (KV-27V10/27V15/29V10M/32V15)							
*1-751-135-11		CABLE, PIN (KV-32V15)							
*1-751-136-11		CABLE, PIN (KV-32V15)							
▲ 8-451-275-42		DEFLECTION YOKE Y28PFA(VTM) (KV-27V10/27V15/29V10C/29V10M)							
▲ 8-451-315-41		DEFLECTION YOKE Y34FXA(VTM) (KV-32V15)							

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